

community preferences related to tower facility siting. Overall, and based on the regulatory process set forth in state law that involves the Siting Council, the wireless industry evaluates tower site candidates and qualifies any candidates from the state's perspective, which is to balance the need for any new tower site and minimize environmental impacts where possible.

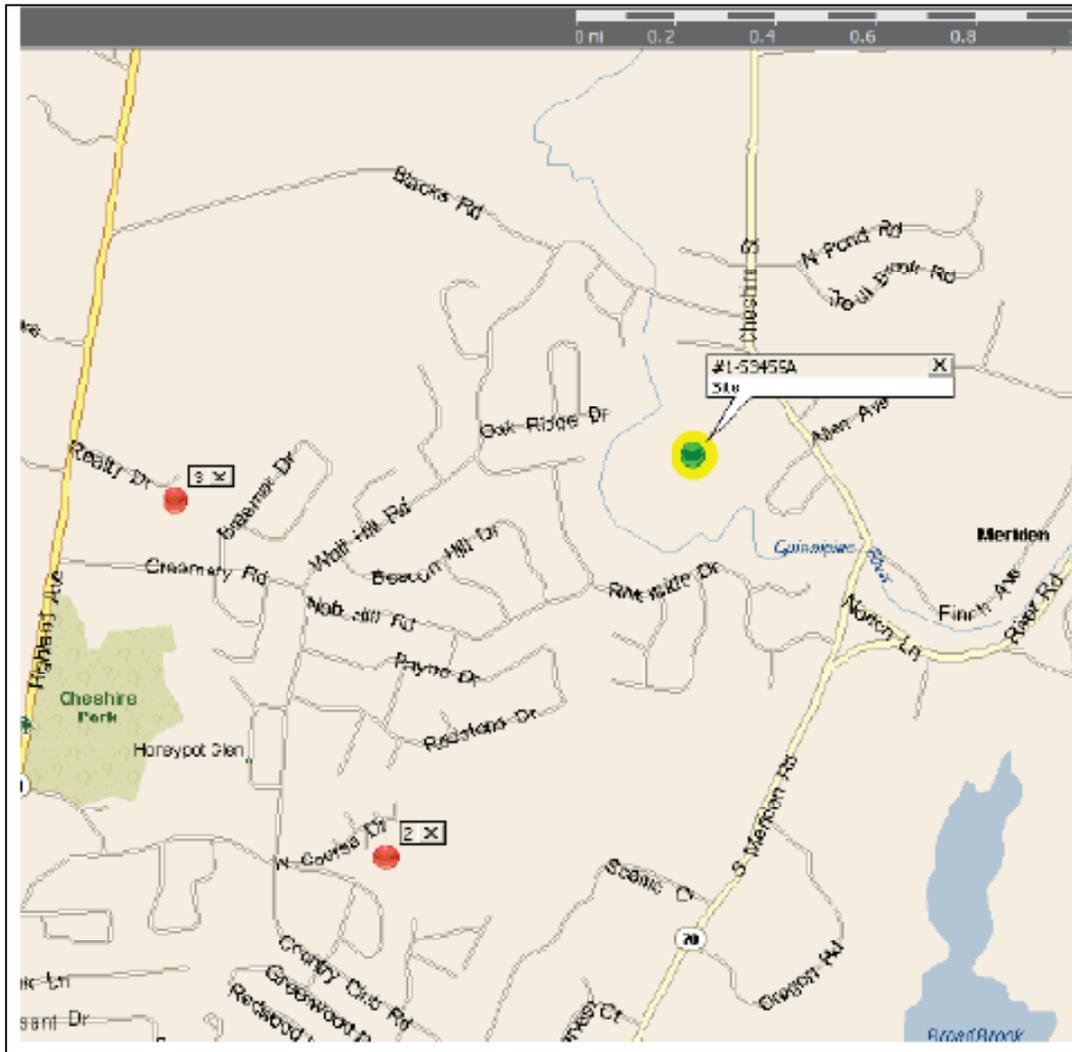
As noted below, both AT&T and Homeland independently investigated a number of different parcels of land within northern Cheshire for construction of a new tower facility including municipally owned properties. As noted below, other than the proposed candidate location these other sites were either unavailable or inappropriate for the siting of a tower facility or technically inadequate to satisfy AT&T's coverage requirements in this area of need.

Sites Investigated by AT&T

Representatives for AT&T also identified and investigated three (3) potential new tower sites/areas for the construction of a wireless facility. A description of each site investigated is set forth below. Where applicable, the reason for eliminating the property from further consideration is also included.

1. *1325 Cheshire Street Cheshire, Proposed Homeland Tower 170' AGL at Town of Cheshire Water Treatment Facility* - AT&T Radio Frequency Engineers approved this site.
2. *796 Greens Loop Cheshire, 80' CL&P Utility Pole* - AT&T Radio Frequency Engineers rejected this site as it did not meet the coverage objective.
3. *99 Realty Drive. 55' Rooftop at Milone and MacBroom building.* AT&T Radio Frequency Engineers rejected this site as it did not meet the coverage objective.

Map of AT&T Search



Homeland Site Search

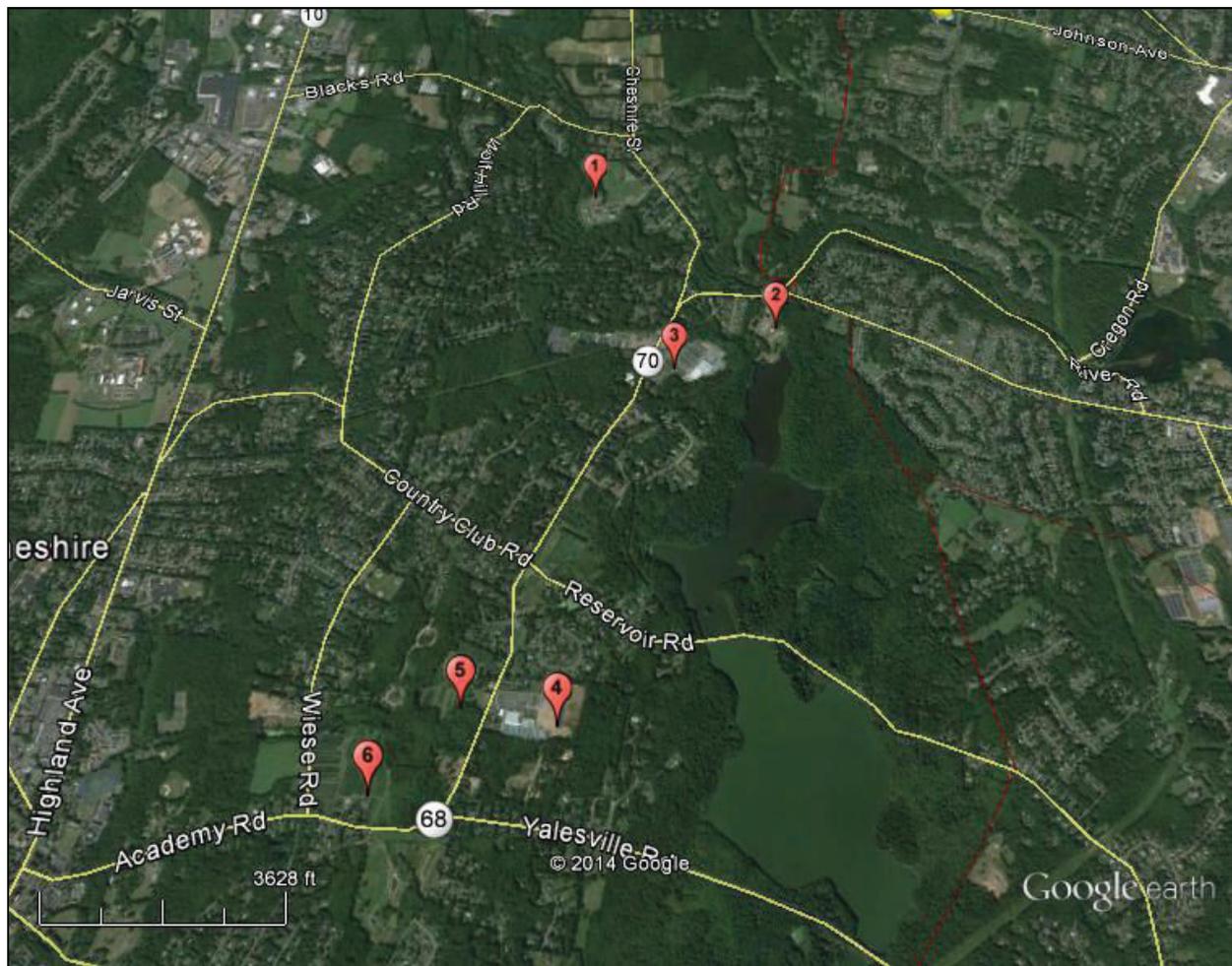
Representatives for Homeland began investigating for a site for the known area of need in northern Cheshire in January of 2012. The site search began with a review of tax maps, topographic maps and satellite images. A number of properties potentially suitable for a site were identified and in April of 2012 preliminary proposals were sent to the owners of those properties. Attached included below is a map identifying the locations of the properties investigated. The sites are identified with corresponding numbers to the list below. A description of each site investigated is set forth below. Where applicable, the reason for eliminating the property from further consideration is also included.

- 1. Quinnipiac Treatment plant owned by the Town of Cheshire at 1325 Cheshire Street, Cheshire CT- this is the proposed candidate.*
- 2. Broad Brook Filtration Plant Owned by the City of Meriden at 1285 South Meriden Road, Cheshire, CT - Preliminary discussions were had with representatives of the City of Meriden which owns the filtration plant at this location in Cheshire. A site visit and preliminary lease negotiations revealed concerns with the contract and the fact that a forthcoming major plant upgrade in 2014 or 2015 would limit construction activities. Follow up communication from Homeland regarding this potential site went unanswered. Unable to get a meeting scheduled or further the lease negotiations Homeland deemed this site rejected by the owner.*
- 3. Casertano Green Houses and Farms at 1020 South Meriden Road in Cheshire CT - this property owner did not respond to Homeland's communication and was presumed not interested.*
- 4. Michaels GreenHouses at 300 South Meriden Rd. in Cheshire CT - this property owner did not respond to Homeland's communication and was presumed not interested.*
- 5. Hickory Hill Orchard at 351 South Meriden Road in Cheshire CT - this property is at the far southern end of the area of need near existing AT&T sites. Notably, the possible location for a facility on this property*

would have called for a lengthy access road, tree removals and close proximity to a retention pond together.

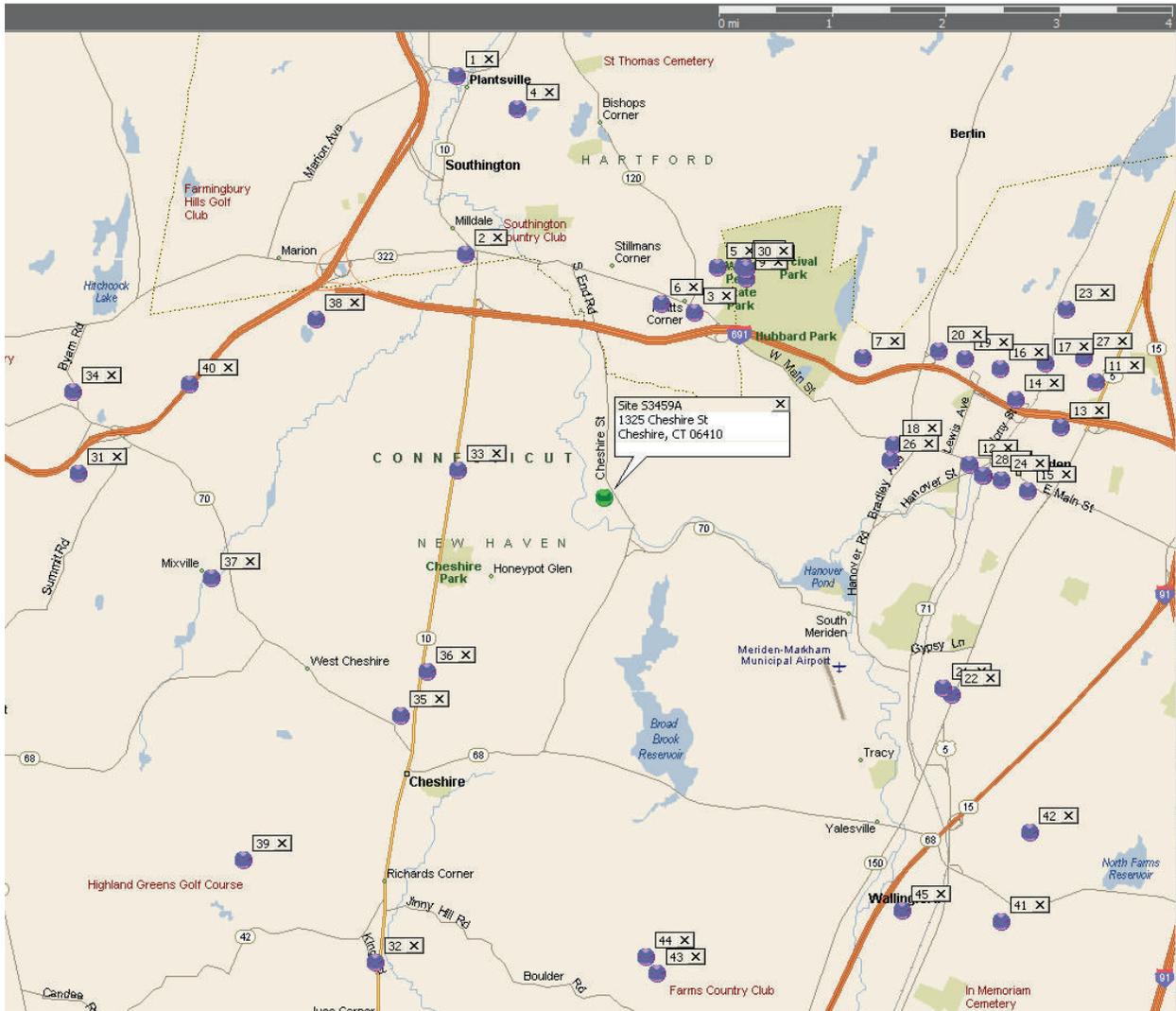
6. Norton Brothers Fruit Farm at 466 Academy Road in Cheshire, CT - this property owner did not respond to Homeland's communication and was presumed not interested.

Map of Homeland Search



Existing Tower/Cell Site Listing

There are forty five (45) communications facilities located within approximately four (4) miles of the site search area for the proposed site in Cheshire. Each location is also shown on the following map. None of the existing facilities set forth below would provide adequate and reliable coverage to the target area. Indeed, many of the towers listed are currently being used or proposed for use by AT&T to provide service outside of the area targeted for service for this proposed Cheshire Facility.



#	Town	Address	Latdd	Longdd	Tower Type	Owner	Height	ATT On Site
1	Southington	110 West Main Street	41.5870278	- 72.8933889	Rooftop		151'	carriers AT&T, Southwestern Bell Mobile
2	Southington	1394 Meriden-Waterbury Rd (Route 322)	41.5642889	- 72.8918778	monopole	Sprint	150	cing/cingular/ATT @ 158'
3	Southington	250 Meriden-Waterbury Turnpike	41.5568306	- 72.8530083	self-supporting lattice	John Rogus	80	cingular/ATT @ 78'
4	Southington	440 Old Turnpike Road	41.5828028	- 72.8831222	self-supporting lattice	Davidson Media Group (WNTY)	254.5'	No
5	Southington	72 Village Gate Drive	41.5625583	- 72.8490694	Water Tank	C.H Nickerson & Co.	54'	No
6	Southington	Rahlene Drive	41.5580444	- 72.8586694	power mount	CL&P	91	No
7	Meriden	1 Undercliff Road	41.5510306	- 72.8244194	rooftop			No
8	Meriden	21 West Peak Drive	41.5628806	- 72.8445889	self-supporting lattice	Thomas Brothers	135	No
9	Meriden	21 West Peak Dr	41.5611528	- 72.8441278	self-supporting lattice	Mark Gilmore	150	No
10	Meriden	21 West Peak Drive	41.5626	-72.8447	self-supporting lattice	Clear Channel	160	No
11	Meriden	234 Sherman Avenue	41.5480083	- 72.7845778	rooftop			cingular/ATT @ 74'
12	Meriden	27 Butler St	41.537475	- 72.8062472	building mount	AT&T Office Building	77	cingular/ATT @ 83'
13	Meriden	290 Pratt Street	41.5422222	- 72.7906111	rooftop			cingular/ATT @ 82'
14	Meriden	294 Colony St	41.5456944	- 72.7983333	building mount	DPS	53	No
15	Meriden	38 Elm St.	41.5341139	- 72.7962139	Rooftop	Ashley Harriman	70	No
16	Meriden	435 Lewis Avenue	41.5496944	- 72.8009167	Rooftop			No
17	Meriden	45 Gracey Avenue	41.5502778	- 72.7933333	smokestack			No
18	Meriden	450-478 West Main Street	41.5400361	- 72.8190333	monopole	AT&T	100	cing/cingular/ATT @ 100'
19	Meriden	470 Lewis Avenue	41.5508611	- 72.8068611	rooftop			cingular/ATT @ 50'
20	Meriden	495 Chamberlain Highway	41.55196	-72.81141	rooftop			No
21	Meriden	500 South Broad Street	41.5090833	-72.81075	smokestack			No
22	Meriden	546 S. Broad Street	41.5081389	- 72.8093333	rooftop			cingular/ATT @ 56'
23	Meriden	55 Michael Drive	41.5572306	- 72.7897444	self-supporting lattice	City of Meriden	120	No
24	Meriden	55 Willow Street	41.535436	-72.800684	rooftop			cingular/ATT @ 131'
25	Meriden	60 Hanover Street	41.5360278	- 72.8038611	Rooftop			No

26	Meriden	64-80 S. Vine Street	41.5380333	-72.8196944	smokestack/rooftop			No
27	Meriden	85 Tremont St.	41.5511111	-72.7866111	rooftop	T-Mobile		No
28	Meriden	90 Hanover Street	41.5360278	-72.8038889	rooftop			No
29	Meriden	West Peak	41.5623333	-72.8442389	self-supporting lattice	Thomas Brothers	150	No
30	Meriden	West Peak Dr	41.5625667	-72.8442861	self-supporting lattice	AT&T/SCLP	125	cingular/ATT @ 131'
31	Cheshire	1119 Summit Road	41.5363889	-72.9578333	Monopole	Crown	170	No
32	Cheshire	1125 South Main Street	41.4741167	-72.9074333	rooftop	Town of Cheshire	35'	No
33	Cheshire	1338 Highland Avenue	41.5368778	-72.8932972	silos	Tower Farms Garden Center	64'	cingular/ATT @ 49'
34	Cheshire	1511 Byam Road	41.5468444	-72.9588167	rooftop		20'	No
35	Cheshire	250 Maple Avenue	41.5055139	-72.9030194	tower		121'	No
36	Cheshire	500 Highland Avenue	41.5111944	-72.8984722	Monopole	Town of Cheshire	160	No
37	Cheshire	677 Mixville Road	41.5231222	-72.9353083	smokestack			cingular/ATT @ 91'
38	Cheshire	705 West Johnson Road	41.5560444	-72.917425	self-supporting lattice	CL&P	140	cingular/ATT @ 98'
39	Cheshire	751 Higgins Road	41.4872222	-72.9297222	self-supporting lattice	AT&T	269	cingular/ATT @ 260/242'
40	Cheshire	Cheshire Larsens Pond	41.5477778	-72.9388889	Monopole			cingular/ATT @ 89'
41	Wallingford	20 Alexander Dr.	41.4793056	-72.8008639	building mount	Verizon	35	No
42	Wallingford	50 Barnes Park North	41.49064	-72.79594	in-building IP access			No
43	Wallingford	56 Gaylord Farm Road	41.4728028	-72.8594556	watertank	Gaylord Hospital		No
44	Wallingford	80 Gaylord Farm Road	41.474833	-72.861358	water tank	Sprint	147'	No
45	Wallingford	90 North Plains Industrial Road	41.4807556	-72.8177222	monopole	American Tower	180	cingular/ATT @ 160'

ATTACHMENT 4

SITE EVALUATION REPORT
CHESHIRE

I. LOCATION

- A. COORDINATES: 41° 31' 57.32" N
72° 52' 13.70" W
- B. GROUND ELEVATION: 116'± AMSL
- C. USGS MAP: USGS 7.5 quadrangle for Meriden, CT
- D. SITE ADDRESS: 1325 Cheshire Street
Cheshire, CT 06410
- E. ZONING WITHIN ¼ MILE OF SITE: Abutting areas are zoned Residential (R-40) to the north, south, and east. To the west the abutting areas are zoned Residential (R-40 and R-20).

II. DESCRIPTION

- A. SITE SIZE: 59.0 Ac (Vol 150, Page 376)
LEASE AREA/COMPOUND AREA: 5,625 SF/4,650 SF
- B. TOWER TYPE/HEIGHT: A 170' Monopole with top of antennas at 180' AGL.
- C. SITE TOPOGRAPHY AND SURFACE: Subject site is located within a parcel owned by the Town of Cheshire and used as the Water Pollution Control Plant.
- D. SURROUNDING TERRAIN, VEGETATION, WETLANDS, OR WATER: The proposed compound is located in the center of a 59± acre parcel which is currently used as the municipal water pollution control plant and municipal recreation fields. To the north and west are undisturbed brush/wooded areas. To the south is the existing Water Pollution Control Plant. To the east are municipal athletic fields and associated parking. There are wetlands on-site to the west (±127').

- E. LAND USE WITHIN ¼ MILE OF SITE: Residential land to the north, south, east, and west.

III. FACILITIES

- A. POWER COMPANY: Northeast Utilities Service Company
- B. POWER PROXIMITY TO SITE: 385'±
- C. TELEPHONE COMPANY: AT&T
- D. PHONE SERVICE PROXIMITY: 385'±
- E. VEHICLE ACCESS TO SITE: Access to the proposed telecommunication facility will be along the existing bituminous driveway to the Water Pollution Control Plant to an existing gate north of the existing plant (1,360'+/-). The access from the existing gate to the proposed telecommunication facility will be along a proposed gravel driveway (140'+/-).
- F. OBSTRUCTION: 100 Year Flood Line to the west and south of the proposed telecommunication facility.
- G. CLEARING AND FILL REQUIRED: Total area of disturbance is 13,500 sf.; No trees will need to be removed. The site improvements shall produce a balanced site and will require approximately 250 CY of cut for utility trenching and approximately 160 CY of broken stone for the compound and driveway construction.

IV. LEGAL

- A. PURCHASE [] LEASE [X]
- B. OWNER: TOWN OF CHESHIRE
- C. ADDRESS: Cheshire, CT 06410
- D. DEED ON FILE AT: Volume 150, Page 376



Site Impact Statement

Site: Cheshire
Site Address: 1325 Cheshire Street
Cheshire, CT 410

Access distances:

Distance of new access driveway: 140± feet

Distance to Nearest Wetlands

127'+/- west of the proposed facility

Distance to Property Lines:

721'+/- to the northern property boundary from the tower
960'+/- to the southern property boundary from the tower
433'+/- to the northwestern property boundary from the tower
851'+/- to the southeastern property boundary from the tower

682'+/- to the northern property boundary from the compound
917'+/- to the southern property boundary from the compound
384'+/- to the northwestern property boundary from the compound
806'+/- to the southeastern property boundary from the compound

Residence Information:

There are 12 single family residences within 1,000' feet of the compound. The closest off site residence is 781' to the north and is located at Parcel 29-114 (11 Marks Place).

Special Building Information:

The 100 Year Flood Line (Elev. 112) is located on site, west of the proposed facility and the 100 Year Flood Line (Elev. 112.7) is located on site, south of the proposed facility.

Tree Removal Count:

No trees need to be removed to construct the equipment areas.

6" - 10" dbh	0 trees
10" - 14" dbh	0 trees
14" or greater dbh	0 trees

Cut/Fill: The site improvements shall produce a balanced site and will require approximately 250 CY of cut for utility trenching and approximately 160 CY of broken stone for the compound and driveway construction.

Clearing/Grading Necessary: Total area of disturbance = 13,500 SF



Tree Inventory

January 15, 2014

Cuddy & Feder, LLP
Attn: Christopher Fisher, Esq.
445 Hamilton Avenue
14th Floor
White Plains, NY 10601

RE: Tree Inventory
Site: CT005 Cheshire
1325 Cheshire Street
Cheshire, CT 06410

Dear Mr. Fisher:

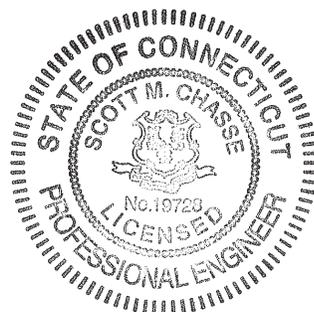
A Tree Inventory was completed at the subject site on October 10, 2013 to determine the size and quantity of existing trees that will need to be removed for the installation of the proposed facility. The proposed site has suitable access, but clearing and earthwork will be required to improve the access route and to construct the compound area. Installation of the proposed compound area improvements will not require the removal of any trees.

The area to be disturbed for construction of the compound area will be approximately 5,625 square feet of existing brush/wooded area. The area to be cleared is located on the interior of the site and should not be visible to abutters. An existing access road exists on site and will require an extension to connect to the proposed compound. The total combined area of disturbance for compound, access drive, and utility improvements is 13,500 sf.

Sincerely,

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

Scott M. Chasse, P.E.
Principal



ALL-POINTS TECHNOLOGY CORPORATION, P.C.

3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

**HOMELAND TOWERS CT 005
CHESHIRE
1000' RESIDENTIAL BUILDING LIST**

PARCEL ID	STREET ADDRESS	BUILDING TYPE	DISTANCE FROM COMPOUND* (ft)
30-3	1339 CHESHIRE STREET	Single Family	947+/-
30-4	1355 CHESHIRE STREET	Single Family	917+/-
29-111	5 MARKS PLACE	Single Family	952+/-
29-112	7 MARKS PLACE	Single Family	907+/-
29-113	9 MARKS PLACE	Single Family	909+/-
29-114	11 MARKS PLACE	Single Family	781+/-
29-115	13 MARKS PLACE	Single Family	999+/-
29-40	540 OAKRIDGE DRIVE	Single Family	802+/-
29-32	532 OAKRIDGE DRIVE	Single Family	880+/-
29-33	94 VISTA TERRACE	Single Family	946+/-
39-68	13 WORDEN CIRCLE	Single Family	891+/-
39-67	15 WORDEN CIRCLE	Single Family	893+/-

*Information gathered from Cheshire Assessor Maps 29, 30 & 39 and Bing Digiglobe 2012 Aerial Images (1-ft resolution)

ATTACHMENT 5



Legend

- x-x-x Metal Fence
- Proposed Facility Layout
- Approximate Subject Parcel Boundary
- Approximate Parcel Boundary (CTDEEP)
- NAMED_WATERBODY_POLY

Base Map Source: 2012 Aerial Photograph (CTECO)
Map Date: July 2014

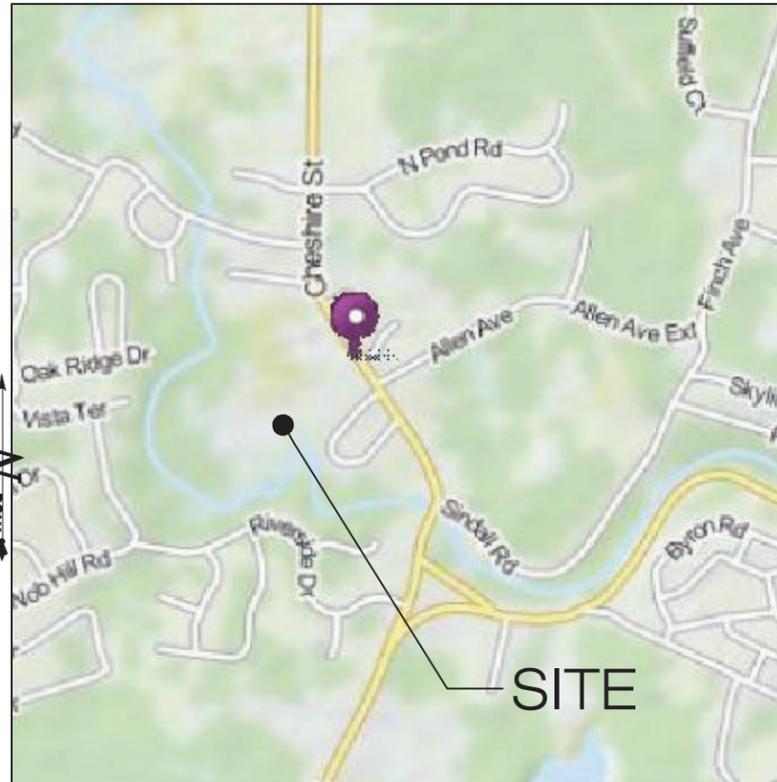


Aerial Photograph

Proposed Wireless
Telecommunications Facility
Cheshire
1325 Cheshire Street
Cheshire, Connecticut

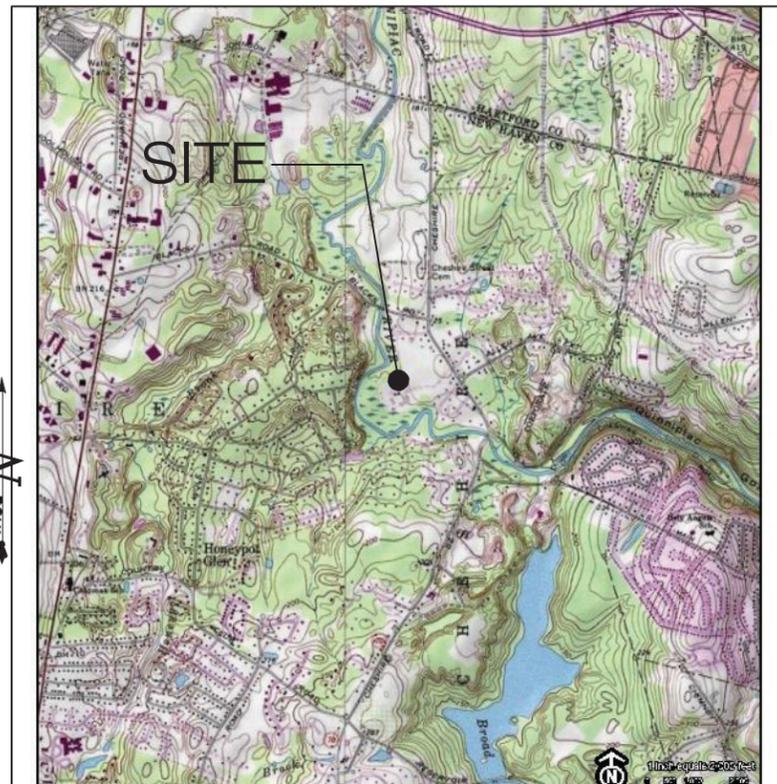


LOCATION MAP



SCALE: NTS SOURCE: GOOGLE MAPS

USGS TOPOGRAPHIC MAP



SCALE: 1" = 2000'± SOURCE: USGS 7.5 QUADRANGLE FOR MERIDEN



**NEW CINGULAR
WIRELESS PCS, LLC
(AT&T)**
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067



3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0935
WWW.ALLPOINTSTECH.COM

CONTACT PERSONNEL

APPLICANTS:
HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CONNECTICUT 06810

CO-APPLICANTS
AT&T MOBILITY
500 ENTERPRISE DRIVE
ROCKY HILL, CT 06067

LANDLORD
TOWN OF CHESHIRE
84 SOUTH MAIN STREET
CHESHIRE, CT 06410

HOMELAND PROJECT MANAGER:
VINCENT XAVIER
(914) 879-9172

HOMELAND PROJECT ATTORNEY:
CUDDY & FEDER, LLP
445 HAMILTON AVENUE
14TH FLOOR
WHITE PLAINS, NY 10601

POWER PROVIDER:
NU (203) 271-4856
DAVID MOREL

TELCO PROVIDER:
AT&T: (800)-727-8368

CALL BEFORE YOU DIG:
(800) 922-4455

GOVERNING CODES:
2009 CONNECTICUT BUILDING CODE (2003 IBC BASIS)
NATIONAL ELECTRIC CODE
IA/TIA 222F

SITE INFORMATION

**CHESHIRE
1325 CHESHIRE STREET
CHESHIRE, CT 06410**

DRAWING INDEX

- T-1 TITLE SHEET & INDEX
- A-1 ABUTTERS MAP
- 1 OF 1 PROPERTY SURVEY
- SP-1 SITE PLAN
- SP-2 COMPOUND PLAN AND TOWER ELEVATION

***SITE INFORMATION:**

-SITE NAME:.....	CHESHIRE	-ZONE:.....	R-40
-SITE ID NUMBER:.....	CT-005	-LATITUDE -	41° 31' 57.32" N
		-LONGITUDE -	72° 52' 13.70" W
-SITE ADDRESS:.....	1325 CHESHIRE STREET CHESHIRE, CT 06410	-ELEVATION -	116± AMSL
		-FEMA/FIRM DESIGNATION:.....	PANEL#09009C0161H - ZONE X
-MAP:.....	38	-ACREAGE:.....	59.0± Ac (VOL. 150, PAGE 376)
-LOTS:.....	180		

HOMELAND TOWERS SITE NUMBER:
CT-005

APT FILING NUMBER:
CT-283-250



HOMELAND TOWERS
22 SHELTER ROCK LANE
BUILDING C
DANBURY, CT 06810



ALL-POINTS
TECHNOLOGY CORPORATION

3 SADDLEBROOK DRIVE PHONE: (860)-663-1697
KILLINGWORTH, CT 06419 FAX: (860)-663-0935
WWW.ALLPOINTSTECH.COM

PERMITTING DOCUMENTS		TITLE SHEET AND INDEX
CHESHIRE 1325 CHESHIRE STREET CHESHIRE, CT 06410		
DESIGN TYPE: RAW LAND DEVELOPMENT SITE		APT FILING NUMBER: CT-283-250 APT DRAWING NUMBER: CT005 T-1
DRAWN BY: RCB	CHECKED BY: SMC	SCALE: AS NOTED DATE: 01/15/14
REVISIONS:		SHEET NUMBER: T-1
REV.0: 01/15/14: FOR REVIEW: SMC		
REV.1: 04/07/14: AT&T REVISIONS: SMC		
REV.2: 05/09/14: GENERAL REVISIONS: SMC		
REV.3: 05/28/14: AT&T REVISIONS: SMC		
REV.4:		
REV.5:		

ABUTTERS INFORMATION

NOB HILL ROAD	MARKS PLACE	RIVERSIDE DRIVE	WORDEN CIRCLE
PARCEL: 38-178 286 NOB HILL ROAD N/F JOSEPH R. ANTHONY 286 NOB HILL ROAD CHESHIRE, CT 06410	PARCEL: 29-111 5 MARKS PLACE N/F DREW S. & JENNIFER K. BLACK 450 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 38-171 450 RIVERSIDE DRIVE N/F ROBERT H. & LINDA J. DOANE 450 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 39-68 13 WORDEN CIRCLE N/F GARY WASSMER & ANDREA DOANE 13 WORDEN CIRCLE CHESHIRE, CT 06410
PARCEL: 38-177 270 NOB HILL ROAD N/F GORDON R. & JUDITH P. OBEREMPT 270 NOB HILL ROAD CHESHIRE, CT 06410	PARCEL: 29-112 7 MARKS PLACE N/F CHRISTOPHER J. & NANCY S. SIMCK 7 MARKS PLACE CHESHIRE, CT 06410	PARCEL: 38-170 454 RIVERSIDE DRIVE N/F JANE RUSSELL BATE 454 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 39-67 15 WORDEN CIRCLE N/F KATHLEEN S. RICHARD 15 WORDEN CIRCLE CHESHIRE, CT 06410
PARCEL: 38-176 256 NOB HILL ROAD N/F FDFSDFS 256 NOB HILL ROAD CHESHIRE, CT 06410	PARCEL: 29-113 9 MARKS PLACE N/F ATTANASIO JOSEPH JR 9 MARKS PLACE CHESHIRE, CT 06410	PARCEL: 38-169 470 RIVERSIDE DRIVE N/F THOMAS E. GRIMSHAW 470 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 39-66 17 WORDEN CIRCLE N/F RICHARD M. & ROSEANNE B. FERRARO 17 WORDEN CIRCLE CHESHIRE, CT 06410
PARCEL: 38-175 240 NOB HILL ROAD N/F HARRY J. JR & CHARLENE R. BLACK 240 NOB HILL ROAD CHESHIRE, CT 06410	PARCEL: 29-114 11 MARKS PLACE N/F DIANE M. KEARNEY 11 MARKS PLACE CHESHIRE, CT 06410	PARCEL: 38-168 490 RIVERSIDE DRIVE N/F ROBERT A. MEISTER 490 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 30-142 19 WORDEN CIRCLE N/F CATHIE A. NIZICH 19 WORDEN CIRCLE CHESHIRE, CT 06410
PARCEL: 38-174 226 NOB HILL ROAD N/F JENNIFER ARCESI & DAVID CETRONE 226 NOB HILL ROAD CHESHIRE, CT 06410	PARCEL: 29-115 13 MARKS PLACE N/F PETER S. & GINA M. REINERS 13 MARKS PLACE CHESHIRE, CT 06410	PARCEL: 38-167 510 RIVERSIDE DRIVE N/F SCOTT WEINER & ANAT LEVITEH 510 RIVERSIDE DRIVE CHESHIRE, CT 06410	CHESHIRE STREET PARCEL: 30-141 1369 CHESHIRE STREET N/F STEPHEN J. & DANNA COBBE 1369 CHESHIRE STREET CHESHIRE, CT 06410
	SABLE COURT	PARCEL: 38-181 520 RIVERSIDE DRIVE N/F JOHN F. & ROBIN G. CAPONE 520 RIVERSIDE DRIVE CHESHIRE, CT 06410	PARCEL: 30-2 1311 CHESHIRE STREET N/F JEAN H. WARGO 1311 CHESHIRE STREET CHESHIRE, CT 06410
	PARCEL: 29-130 499 SABLE COURT N/F MARK S. & SUSAN HALLBACH 499 SABLE COURT CHESHIRE, CT 06410	PARCEL: 39-4 CHESHIRE STREET N/F CHESHIRE LAND TRUST INC. CHESHIRE, CT 06410	PARCEL: 30-4 1355 CHESHIRE STREET N/F DAVID M. & SANDRA D. LETOURNEAU 1355 CHESHIRE STREET CHESHIRE, CT 06410
	OAKRIDGE DRIVE	PARCEL: 29-40 540 OAKRIDGE DRIVE N/F EDWARD S. KONOWITZ 540 OAKRIDGE DRIVE CHESHIRE, CT 06410	VISTA TERRACE
	PARCEL: 29-32 532 OAKRIDGE DRIVE N/F DONALD L. & DIANE E. DRUST 532 OAKRIDGE DR CHESHIRE, CT 06410	PARCEL: 29-33 94 VISTA TERRACE N/F JOAN L. TATIGIAN 94 VISTA TERRACE CHESHIRE, CT 06410	PARCEL: 30-3 1339 CHESHIRE STREET N/F VARRI RAMPRASAD 1339 CHESHIRE STREET CHESHIRE, CT 06410
	PARCEL: 29-39 91 VISTA TERRACE N/F LIAM C. & ALISON A. CONSIDINE 91 VISTA TERRACE CHESHIRE, CT 06410	PARCEL: 30-22 1344 CHESHIRE STREET N/F MONTGOMERY T. HELMS 1322 CHESHIRE STREET CHESHIRE, CT 06410	PARCEL: 30-24 1322 CHESHIRE STREET N/F MONTGOMERY T. HELMS 1314 CHESHIRE STREET CHESHIRE, CT 06410
		PARCEL: 29-39 91 VISTA TERRACE N/F LIAM C. & ALISON A. CONSIDINE 91 VISTA TERRACE CHESHIRE, CT 06410	PARCEL: 30-148 1314 CHESHIRE STREET N/F JOHN E. & TARA K. MILLER 1314 CHESHIRE STREET CHESHIRE, CT 06410

SITE AREAS & VOLUMES OF EARTHWORK

SITework SHALL PRODUCE A BALANCED SITE IN TERMS OF CUT AND FILL. THE COMPOUND AND ROADWAY WILL IMPORT APPROXIMATELY 160 CUBIC YARDS OF CLEAN BROKEN STONE. THE UTILITY TRENCH FROM THE DEMARC TO THE COMPOUND WILL EXCAVATE APPROXIMATELY 250 CUBIC YARDS OF MATERIAL THAT WILL BE USED TO BACKFILL THE TRENCH.

COMPOUND AREA SLOPES:
EXISTING - <2.0%
PROPOSED - <2.0%

TOTAL AREA OF DISTURBANCE = 13,500 ± SF

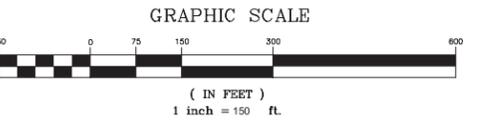
STORMWATER VELOCITY:
PRIOR TO GROUND COVER < 3.0 FT/SEC
FOLLOWING GROUND COVER < 3.0 FT/SEC

STORMWATER VOLUME:
PROPOSED IMPERVIOUS AREA = 8,125 SF
WATER QUALITY STD VOLUME (1") = 677 CF
NEW GRAVEL SURFACE AREA = 6,338 SF
STORAGE VOLUME (6" DEPTH, 30% VOIDS) = 950 CF

GROUND COVER TO BE ESTABLISHED AS FOLLOWS
(U.O.N):
- WHITE CLOVER @ 0.20#/- SF
- TALL FESCUE @ 0.45#/- SF
- RYEGRASS @ 0.10#/- SF

- BASE MAPPING FOR SHEETS A-1, SP-1 AND SP-2 FROM:
1. PLAN ENTITLED "TOPOGRAPHIC SURVEY - 1325 CHESHIRE STREET CHESHIRE, CONNECTICUT" PREPARED BY MARTINEZ COUCH & ASSOCIATES, LLC 1084 CROMWELL AVENUE ROCKY HILL, CT DATED OCTOBER 10, 2013.
 2. TOWN OF CHESHIRE ASSESSORS MAPS 29, 30, 38, & 39.
 3. TOWN OF CHESHIRE "ZONING MAP"
 4. DIGITAL GLOBAL 2012 DIGITAL ORTHOPHOGRAPHS.

HOMELAND TOWERS SITE NUMBER: CT-005 APT FILING NUMBER: CT-283-250  HOMELAND TOWERS 22 SHELTER ROCK LANE BUILDING C DANBURY, CT 06810	PERMITTING DOCUMENTS CHESHIRE 1325 CHESHIRE STREET CHESHIRE, CT 06410	ABUTTERS MAP	
	DESIGN TYPE: RAW LAND DEVELOPMENT SITE	APT FILING NUMBER: CT-283-250 APT DRAWING NUMBER: CT005 A-1	
 ALL-POINTS TECHNOLOGY CORPORATION 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM	REVISIONS: REV.0: 01/15/14: FOR REVIEW: SMC REV.1: 04/07/14: AT&T REVISIONS: SMC REV.2: 05/09/14: GENERAL REVISIONS: SMC REV.3: 05/28/14: AT&T REVISIONS: SMC REV.4: REV.5:	DRAWN BY: RCB CHECKED BY: SMC	SCALE: AS NOTED DATE: 01/15/14 SHEET NUMBER: <h1>A-1</h1>



ABUTTERS MAP
SCALE: 1" = 150'-0"



SURVEY NOTES

THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 20-300B-1 THRU 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES - MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPT. 26, 1996. IT IS A TOPOGRAPHIC SURVEY CONFORMING TO TOPOGRAPHIC ACCURACY CLASS T-2 AND VERTICAL ACCURACY CLASS V-2. HORIZONTAL ACCURACY IS CONFORMS TO CLASS D.

THE PROPERTY LINES DEPICTED HEREON ARE COMPILED FROM RECORD RESEARCH, OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS SAID SURVEY MAY DISCLOSE.

PARCEL IS SUBJECT TO A DRAINAGE EASEMENT IN FAVOR OF THE TOWN OF CHESHIRE VOL. 646 PG. 284.

NOT ALL IMPROVEMENTS ARE SHOWN.

NORTH ORIENTATION AND COORDINATES REFER TO CONNECTICUT GRID SYSTEM NAD 83.

ELEVATIONS ARE BASED ON NAVD 1988.

ALL IMPROVEMENTS ARE NOT SHOWN.

PARCEL ADDRESS: 1325 CHESHIRE STREET, CHESHIRE CT.

PARCEL OWNER OF RECORD: TOWN OF CHESHIRE.

PARCEL IS IN THE R-40 ZONE.

PARCEL MAP 38 LOT 180 CHESHIRE ASSESSORS MAP.

PARCEL AREA = 59± ACRES.

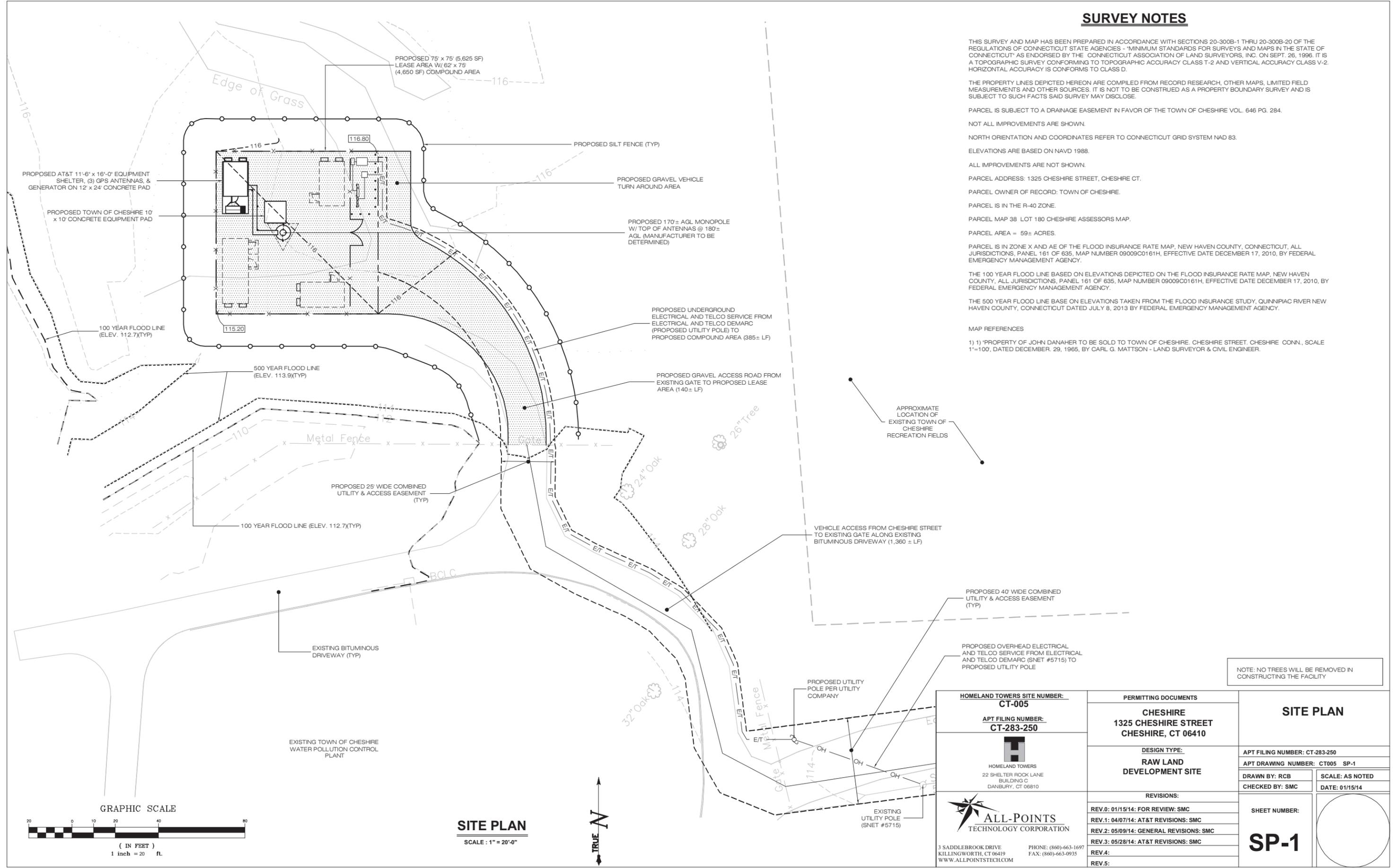
PARCEL IS IN ZONE X AND AE OF THE FLOOD INSURANCE RATE MAP, NEW HAVEN COUNTY, CONNECTICUT, ALL JURISDICTIONS, PANEL 161 OF 635, MAP NUMBER 09009C0161H, EFFECTIVE DATE DECEMBER 17, 2010, BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

THE 100 YEAR FLOOD LINE BASED ON ELEVATIONS DEPICTED ON THE FLOOD INSURANCE RATE MAP, NEW HAVEN COUNTY, ALL JURISDICTIONS, PANEL 161 OF 635, MAP NUMBER 09009C0161H, EFFECTIVE DATE DECEMBER 17, 2010, BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

THE 500 YEAR FLOOD LINE BASE ON ELEVATIONS TAKEN FROM THE FLOOD INSURANCE STUDY, QUINNIAC RIVER NEW HAVEN COUNTY, CONNECTICUT DATED JULY 8, 2013 BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

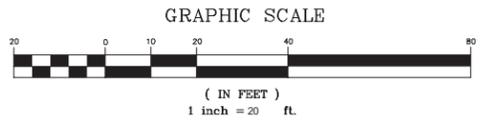
MAP REFERENCES

- 1) PROPERTY OF JOHN DANAHER TO BE SOLD TO TOWN OF CHESHIRE, CHESHIRE STREET, CHESHIRE CONN., SCALE 1"=100, DATED DECEMBER, 29, 1965, BY CARL G. MATTSOON - LAND SURVEYOR & CIVIL ENGINEER.



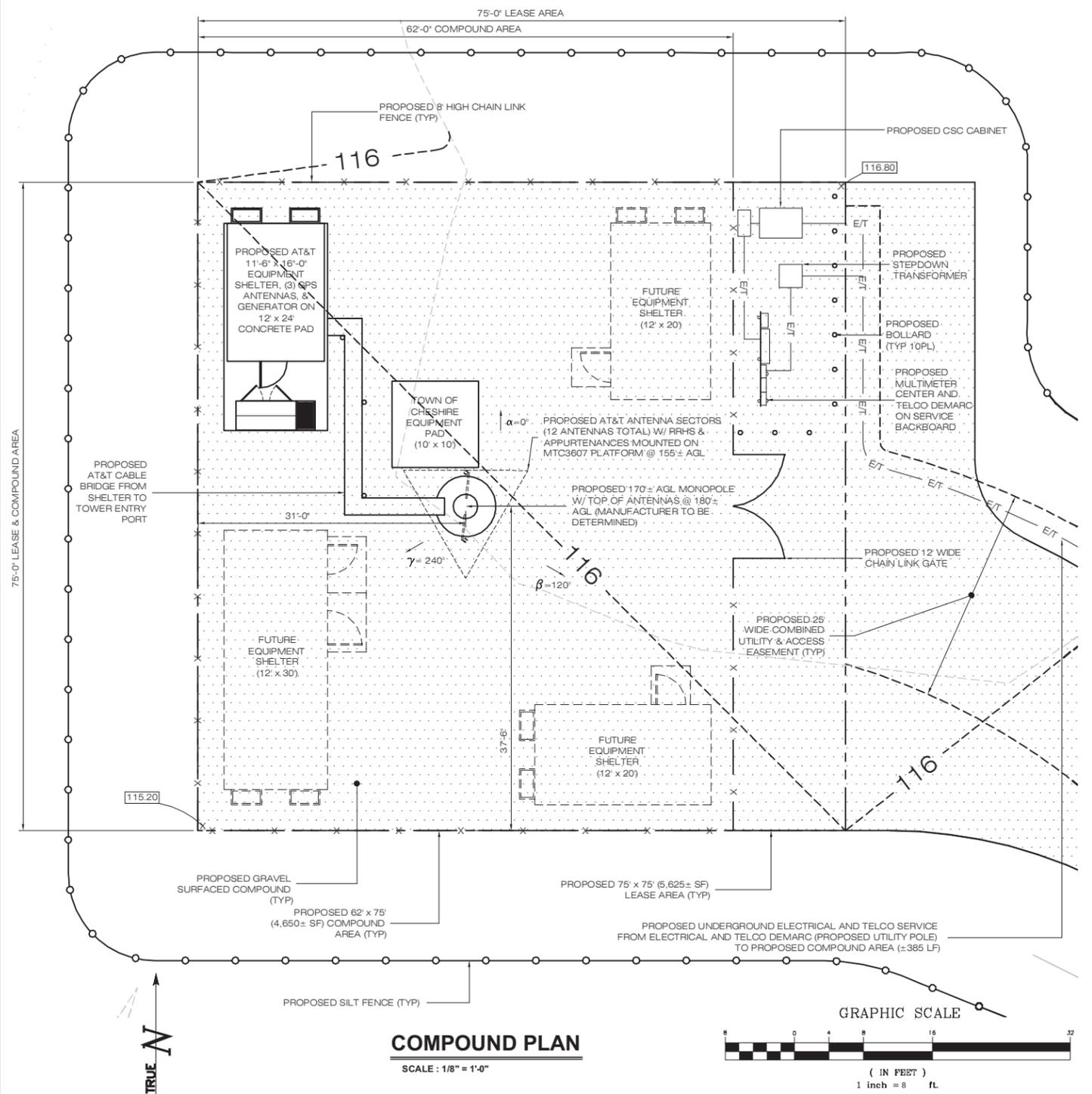
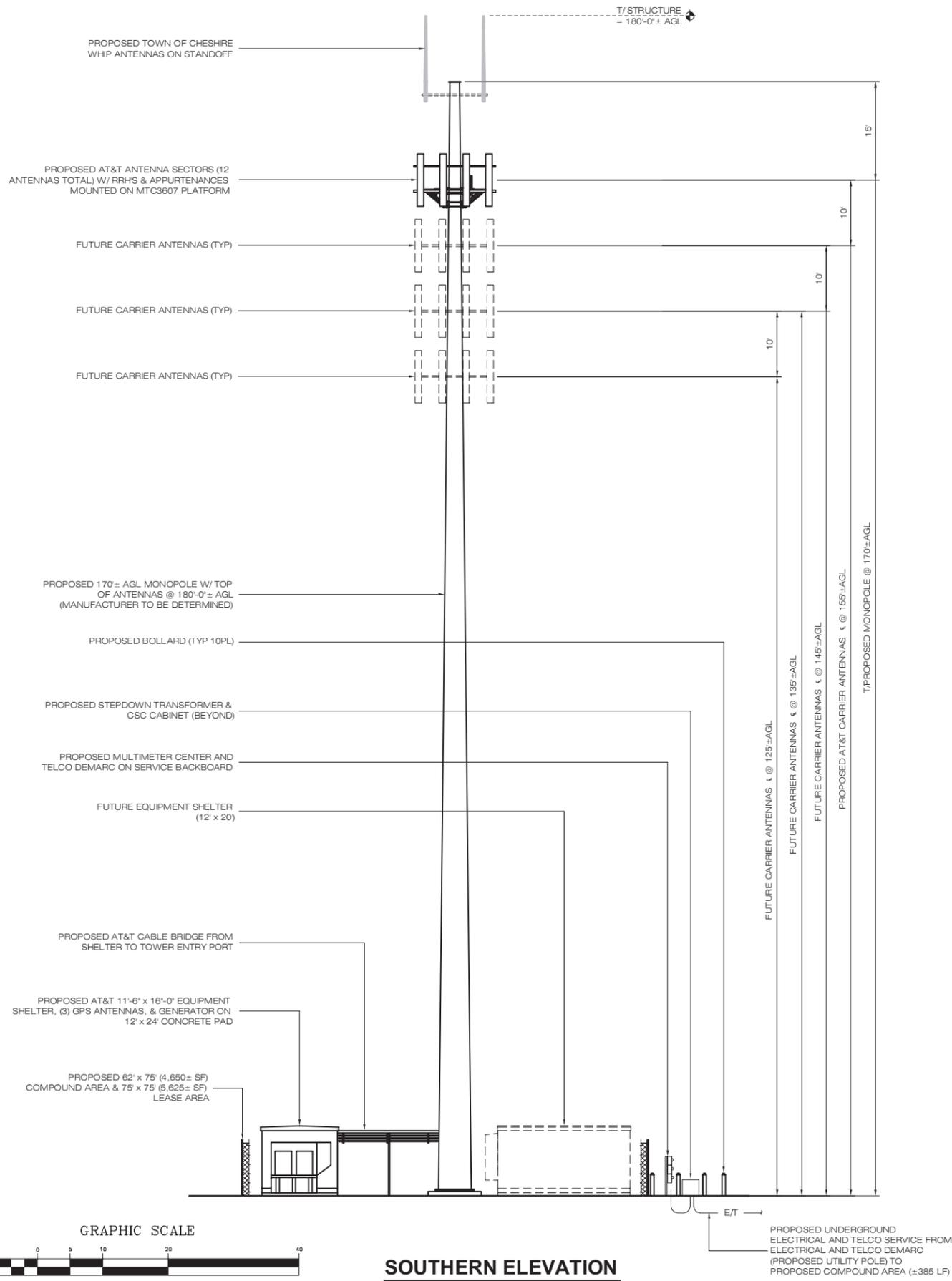
NOTE: NO TREES WILL BE REMOVED IN CONSTRUCTING THE FACILITY

<p>HOMELAND TOWERS SITE NUMBER: CT-005</p> <p>APT FILING NUMBER: CT-283-250</p> <div style="text-align: center;"> </div> <p>HOMELAND TOWERS 22 SHELTER ROCK LANE BUILDING C DANBURY, CT 06810</p>	<p style="text-align: center;">PERMITTING DOCUMENTS</p> <p style="text-align: center;">CHESHIRE 1325 CHESHIRE STREET CHESHIRE, CT 06410</p>	<p>SITE PLAN</p>	
	<p style="text-align: center;">DESIGN TYPE: RAW LAND DEVELOPMENT SITE</p>	<p>APT FILING NUMBER: CT-283-250</p> <p>APT DRAWING NUMBER: CT005 SP-1</p>	
	<p style="text-align: center;">REVISIONS:</p> <p>REV.0: 01/15/14: FOR REVIEW: SMC</p> <p>REV.1: 04/07/14: AT&T REVISIONS: SMC</p> <p>REV.2: 05/09/14: GENERAL REVISIONS: SMC</p> <p>REV.3: 05/28/14: AT&T REVISIONS: SMC</p> <p>REV.4:</p> <p>REV.5:</p>	<p>DRAWN BY: RCB</p> <p>CHECKED BY: SMC</p>	<p>SCALE: AS NOTED</p> <p>DATE: 01/15/14</p>
	<p style="text-align: center;">ALL-POINTS TECHNOLOGY CORPORATION</p> <p>3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM</p> <p>PHONE: (860)-663-1697 FAX: (860)-663-0935</p>	<p>SHEET NUMBER:</p> <p style="font-size: 2em; font-weight: bold; text-align: center;">SP-1</p>	



SITE PLAN
SCALE: 1" = 20'-0"





HOMELAND TOWERS SITE NUMBER: CT-005 APT FILING NUMBER: CT-283-250	PERMITTING DOCUMENTS CHESHIRE 1325 CHESHIRE STREET CHESHIRE, CT 06410		COMPOUND PLAN & TOWER ELEVATION	
	DESIGN TYPE: RAW LAND DEVELOPMENT SITE		APT FILING NUMBER: CT-283-250 APT DRAWING NUMBER: CT005 SP-2	
 HOMELAND TOWERS 22 SHELTER ROCK LANE BUILDING C DANBURY, CT 06810	REVISIONS:		DRAWN BY: RCB CHECKED BY: SMC	
	ALL-POINTS TECHNOLOGY CORPORATION 3 SADDLEBROOK DRIVE KILLINGWORTH, CT 06419 WWW.ALLPOINTSTECH.COM		SCALE: AS NOTED DATE: 01/15/14	
REVISIONS: REV.0: 01/15/14: FOR REVIEW: SMC REV.1: 04/07/14: AT&T REVISIONS: SMC REV.2: 05/09/14: GENERAL REVISIONS: SMC REV.3: 05/28/14: AT&T REVISIONS: SMC REV.4: REV.5:		SHEET NUMBER: SP-2		

FAA 2C SURVEY CERTIFICATION

Applicant: Homeland Towers
22 Shelter Rock Lane
Building C
Danbury, CT 06810

Site Name: CT005 CHESHIRE

Address 1325 Cheshire Street
Cheshire, Connecticut 06410

Horizontal Datum: NAD 83

Vertical Datum: N.A.V.D. 88

Structure Type: Proposed Monopole

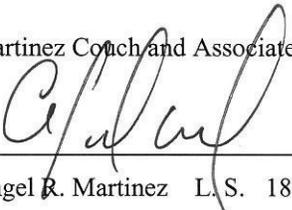
Latitude: 41°- 31'-57.329" N NAD 83
Longitude: 72°- 52'-13.708" W NAD 83

Existing Ground Elevation: 116.0'± feet N.A.V.D. 88

Top of Proposed Structure: 170.0'± feet A.G.L. (286.0'± N.A.V.D. 88)

Certification: I certify that the Latitude and Longitude noted hereon are accurate to within ± 50 feet horizontally and that the site elevation is accurate to within ± 20 feet vertically. With a proposed top of structure of 170.0'± AGL, the overall height will be 286.0'± N.A.V.D. 88. The horizontal datum (coordinates) are in terms of the North American Datum of 1983 (NAD 83) and are expressed in degrees minutes and seconds to the nearest thousandth of a second. The vertical datum (heights) are in terms of the North American Vertical Datum of 1988 and expressed to the nearest foot.

Company: Martinez Couch and Associates L.L.C.

Signature: 

Surveyor/seal: Angel R. Martinez L.S. 18833

Date: October 10, 2013



TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

*** NOTICE ***

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

DETERMINATION Results

PASS SLOPE(50:1): NO FAA REQ-RWY 10499 MTRS OR LESS & 3933.74 MTRS (3.9337) KM AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	41-30-46.00N	072-49-53.00W	MERIDEN MARKHAM MUNI	NEW HAVEN MERIDEN, CT	30.0	944.89999999999998

PASS SLOPE(25:1): NO FAA REQ-HELIPORT 6681.82 MTRS (6.6818 KM) AWAY

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
HELI	C	41-29-31.00N	072-48-40.00W	YALESVILLE	NEW HAVEN YALESVILLE, CT	19.8	19.800000000000001

Your Specifications

NAD83 Coordinates

Latitude 41-31-57.3 north
Longitude 072-52-13.7 west

Measurements (Meters)

Overall Structure Height (AGL) 53.3
Support Structure Height (AGL) 51.8
Site Elevation (AMSL) 35.4

Structure Type

MTOWER - Monopole

Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW

ATTACHMENT 6

ENVIRONMENTAL ASSESSMENT

I. PHYSICAL IMPACT

A. WATER FLOW AND QUALITY

No significant water flow and/or water quality changes are anticipated as a result of the construction or operation of the proposed facility. One wetland was delineated within the study area consisting of a forested floodplain wetland associated with the nearby Quinnipiac River approximately 150 feet west from the proposed facility. A very poorly drained depressional wetland feature dominated by buttonbrush is located approximately 150' west to the proposed Facility and could potentially provide "cryptic style" vernal pool habitat potential supportive of breeding amphibians. While further review of this wetland is being completed no impact is anticipated with the provision of proper protection measures and construction protocols. Best Management Practices to control storm water and soil erosion during construction will be implemented.

B. AIR QUALITY

Under ordinary operating conditions, the equipment that would be used at the proposed facility would emit no air pollutants of any kind. An emergency diesel fuel generator with secondary containment systems will comply with Connecticut Department of Energy and Environmental Protection ("CTDEEP") air standards for such facilities.

C. LAND

Some grading will be required for the facility. The remaining land of the lessor would remain unchanged by the construction and operation of the facility.

D. NOISE

The equipment to be in operation at the facility would not emit noise other than that provided by the operation of the installed heating, air-conditioning and

ventilation system. Some construction related noise would be anticipated during facility construction, which is expected to take approximately four to six weeks. Temporary power outages could involve sound from the emergency generator.

F. VISIBILITY

The attached Viewshed Analysis includes a computer modeled evaluation of the anticipated potential visual impact of a proposed monopole. The potential visibility was assessed within an approximately two (2) mile radius (study area) using a computer-based, predictive viewshed model. A balloon float, in-field review and development of photo simulations are planned. No schools or licensed child day care centers are located within 250' of the site.

II. SCENIC, NATURAL, HISTORIC & RECREATIONAL VALUES

The site is under evaluation in accordance with the FCC's regulations implementing the National Environmental Policy Act of 1969 ("NEPA"). Evaluation including consultation with the Connecticut State Historic Preservation Officer ("SHPO"). By letter dated May 30, 2014 the SHPO determined that the Facility would have no adverse effect on contributing resources eligible for listing on the National register of historic Places in a potential district in Cheshire so long as the design is as "non-visible as possible" and if not used for 6 consecutive months that the Facility should be removed. Please see Attachment 11. The Connecticut Department of Energy and Environmental Protection ("CTDEEP") was consulted regarding the location of the proposed Facility and determined that while wood turtles and eastern box turtles are present in the area, protection measures similar to those used at approved wireless facilities in the state will ensure the protection of these turtles.

ATTACHMENT 7



WETLAND INVESTIGATION

November 19, 2013

**Homeland Towers
22 Shelter Rock Road, Bld. C
Danbury, CT 06810**

APT Project No.: CT283250

**Re: Proposed Cheshire Facility – CT-005
1325 Cheshire Street
Cheshire, Connecticut**

All-Points Technology Corporation, P.C. (“APT”) understands that a wireless telecommunications facility (“Facility”) is proposed by Homeland Towers at 1325 Cheshire Street in Cheshire, Connecticut (“Subject Property”). At your request, Dean Gustafson, a Connecticut registered Professional Soil Scientist with APT conducted an inspection of the Subject Property on October 18, 2013 to determine the presence or absence of wetlands and watercourses within approximately 200 feet of proposed development activities (“Study Area”). The delineation methodology followed was consistent with both the Connecticut Inland Wetlands and Watercourses Act (“IWWA”) and the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*, Version 2.0 (January 2012). The results of this wetland investigation are provided below.

Site and Project Description:

The Subject Property consists of an approximately 59-acre municipally developed parcel. The area proposed for the wireless communications Facility is located centrally on the Subject Property north of the Cheshire Water Pollution Control Plant (“CWPCP”) and west of the Cheshire Quinnipiac Recreation Area within a cleared and graded upland area used as a storage yard. Access is proposed to follow an existing paved drive serving the recreation fields and CWPCP to a point just south of the development area where a new 140± linear foot gravel extension would be required to enter the Facility. The Study Area is dominated by the CWPCP development, athletic fields and undeveloped forest. The surrounding land-use generally consists of developed residential properties.

One wetland area was delineated within the Study Area consisting of a forested floodplain wetland associated with the nearby Quinnipiac River approximately 150 feet west of the proposed Facility. Please refer to the enclosed Wetland Delineation Map for the approximate location of the identified wetland resource area. Wetlands were marked with pink and blue plastic flagging tape numbered with the following sequence: WF 1-01 to 1-12. General weather conditions encountered during the above-referenced inspection included low 60° F temperatures with sunny skies.

ALL-POINTS TECHNOLOGY CORPORATION, P.C.

3 SADDLEBROOK DRIVE · KILLINGWORTH, CT 06419 · PHONE 860-663-1697 · FAX 860-663-0935

P.O. BOX 504 · 116 GRANDVIEW ROAD · CONWAY, NH 03818 · PHONE 603-496-5853 · FAX 603-447-2124

Regulation of Wetlands:

Wetlands and watercourses are regulated by local, state and federal regulations, with each regulatory agency differing slightly in their definition and regulatory authority of resource areas, as discussed below. The proposed Facility is under the exclusive jurisdiction of the State of Connecticut Siting Council and therefore exempt from local regulation, although local wetland regulations are considered by the Siting Council. If wetlands are identified on the Subject Property and direct impact is proposed, those wetlands may be considered Waters of the United States and therefore the activity may also be subject to jurisdiction by the U.S. Army Corps of Engineers (“ACOE”) New England District.

- Town of Cheshire:** The Town of Cheshire regulates activities within wetlands and watercourses and within 50 feet of wetlands and watercourses through administration of the Connecticut IWWA.
- State of Connecticut:** **Freshwater Wetlands:** The IWWA requires the regulation of activities affecting or having the potential to affect wetlands under Sec. 22a-36 through 22a-45 of the Connecticut General Statutes. The IWWA is administered through local municipalities. The IWWA defines wetlands as areas of poorly drained, very poorly drained, floodplain, and alluvial soils, as delineated by a soil scientist. Watercourses are defined as bogs, swamps, or marshes, as well as lakes, ponds, rivers, streams, etc., whether natural or man-made, permanent or intermittent. Intermittent watercourse determinations are based on the presence of a defined permanent channel and bank, and two of the following characteristics: (1) evidence of scour or deposits of recent alluvium or detritus; (2) the presence of standing or flowing water for a duration longer than a particular storm incident; and (3) the presence of hydrophytic vegetation.
- ACOE:** The U.S. Army Corps of Engineers regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the Clean Water Act. Waters of the United States are navigable waters, tributaries to navigable waters, wetlands adjacent to those waters, and/or isolated wetlands that have a demonstrated interstate commerce connection. The ACOE Wetlands Delineation Manual defines wetlands as “[t]hose areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been approved by the ACOE.

Soil Description:

Soil types encountered throughout the Study Area were generally consistent with digitally available soil survey information obtained from the Natural Resources Conservation Service (“NRCS”)¹. Wetland soils field identified consist of the following alluvial (floodplain) soils: Occum fine sandy loam, Pootatuck fine sandy loam, Rippowam fine sandy loam and Saco silt loam. The non-wetland soils were examined along the wetland boundary and more distant upland areas during the delineation, including the proposed Facility location. They are dominated by Penwood loamy sand, Branford silt loam and Udorthents-Urban land complex. Detailed descriptions of wetland and upland soil types are provided below.

Wetland Soils:

The **Occum** series consists of very deep, well drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains, subject to common flooding. Slope ranges from 0 to 3 percent. Permeability is moderate or moderately rapid in the loamy upper horizons and rapid or very rapid in the sandy substratum layers.

The **Pootatuck** series consists of very deep, moderately well drained loamy soils formed in alluvial sediments. They are nearly level soils on floodplains subject to common flooding. Slope ranges from 0 to 3 percent. Permeability is moderate or moderately rapid in the loamy upper horizons and rapid or very rapid in the sandy substratum layers.

The **Rippowam** series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding. Slope ranges from 0 to 3 percent. Permeability is moderate or moderately rapid in the loamy layers and rapid or very rapid in the underlying sandy materials.

The **Saco** series consists of very deep, very poorly drained soils formed in silty alluvial deposits derived mostly from granite, gneiss, schist, shale and sandstone. They are nearly level soils on floodplains along rivers and streams subject to frequent flooding. The thickness and number of horizons below the A horizon is variable and corresponds to the thickness and variability of the alluvial deposits.

Upland Soils:

The **Penwood** series consists of excessively drained sandy soils formed in glaciofluvial (outwash) deposits. The soils are very deep to bedrock and located on nearly level outwash plains and terraces. Permeability is rapid to very rapid with the depth to seasonal water table greater than 6 feet.

The **Branford** series consists of very deep, well drained soils formed in loamy over sandy and gravelly outwash. They are nearly level to strongly sloping soils on outwash plains and terraces. Permeability of the Branford soils is moderate or moderately rapid in the surface layer and subsoil and rapid or very rapid in the substratum. Slope ranges from 0 to 15 percent.

Udorthents is a miscellaneous land type used to denote moderately well to excessively drained earthen material which has been so disturbed by cutting, filling, or grading that the original soil profile can no longer be discerned.

Urban land is a miscellaneous land type consisting mostly of buildings, paved roads and parking lots. Typically included with this unit are small, intermingled areas disturbed by cutting, filling, or grading such that the original soil profile can no longer be discerned.

¹ NRCS Web Soil Survey, <http://websoilsurvey.nrcs.usda.gov/app/>, accessed on October 14, 2013.

Wetlands Discussion:

Wetland 1 Classification Summary:

Wetland 1 ²	System	Subsystem	Class	Subclass	Water Regime	Special Modifier
(WF 1-01 to 1-12)	Palustrine	Lower Perennial	Forested	Broad-leaved Deciduous	Seasonally Flooded	Diked
Watercourse Type (Quinnipiac River)	Perennial <input checked="" type="checkbox"/>	Intermittent <input type="checkbox"/>	Tidal <input type="checkbox"/>	Special Aquatic Habitat (Potential)	Vernal Pool <input checked="" type="checkbox"/>	Other <input type="checkbox"/>

Wetland 1 Description:

Wetland 1 is a forested floodplain wetland system consisting of a variety of soil drainage classifications from excessively drained to very poorly drained. The Quinnipiac River floodplain dominates the wetland habitat that surrounds the CWPCP facility and is west of the Quinnipiac Recreation Area. An earthen dike surrounds the CWPCP to the north, west and south to separate the plant from the river’s active floodplain. A very poorly drained depressional wetland feature dominated by buttonbush is located approximately 150 feet west of the proposed Homeland Tower’s Facility. This wetland feature potentially provides “cryptic style” vernal pool habitat as it appears that the area supports seasonal inundation of sufficient depth and duration to provide breeding habitat for amphibians. Shallow inundation of generally less than 6 inches was observed in the central portion of this potentially special aquatic habitat feature at the time of the inspection.

Wetland 1 Dominant Vegetation:

Dominant Wetland Species Common Name (Latin Name)	Dominant Adjacent Upland Species Common Name (Latin Name)
Red Maple (Acer rubrum)	Sugar Maple (Acer saccharum)
American Elm (Ulmus americana)	Northern Red Oak (Quercus rubra)
American Beech (Fagus grandifolia)	White Oak (Quercus alba)
Pin Oak (Quercus palustris)	Pin Oak (Quercus palustris)
Specked Alder (Alnus rugosa)	Black Cherry (Prunus serotina)
Black Cherry (Prunus serotina)	American Beech (Fagus grandifolia)
Autumn Olive* (Elaeagnus umbellata)	Sassafras (Sassafras albidum)
Multiflora Rose* (Rosa multiflora)	Maple-leaved Viburnum (Viburnum acerifolium)
Winterberry (Ilex verticillata)	Autumn Olive* (Elaeagnus umbellata)
Buttonbush (Cephalanthus occidentalis)	Multiflora Rose* (Rosa multiflora)
Silky Dogwood (Cornus amomum)	Smooth Sumac (Rhus glabra)
Winged Euonymus* (Euonymus alata)	Mugwort* (Artemisia vulgaris)
Spicebush (Lindera benzoin)	maintained lawn species
Common Reed* (Phragmites australis)	
Bebb Willow (Salix bebbiana)	
Mugwort* (Artemisia vulgaris)	
Swallow-wort* (Cynanchum spp.)	
Asiatic Bittersweet* (Celastrus orbiculatus)	

* denotes Connecticut Invasive Plants Council invasive species

² Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm - contents>.

Summary:

Based on APT's understanding of the proposed Homeland Towers development, no direct impact to wetlands or watercourses will result from the proposed activity. However, the proposed Facility and access drive will be in proximity to Wetland 1, a portion of which may provide vernal pool habitat. APT will provide an evaluation of the project's potential wetland and vernal pool impacts under separate cover following a detailed review of the project's site plans.

If you have any questions regarding the above-referenced information, please feel free to contact me by telephone at (860) 984-9515 or via email at dgustafson@allpointstech.com.

Sincerely,

All-Points Technology Corporation, P.C.

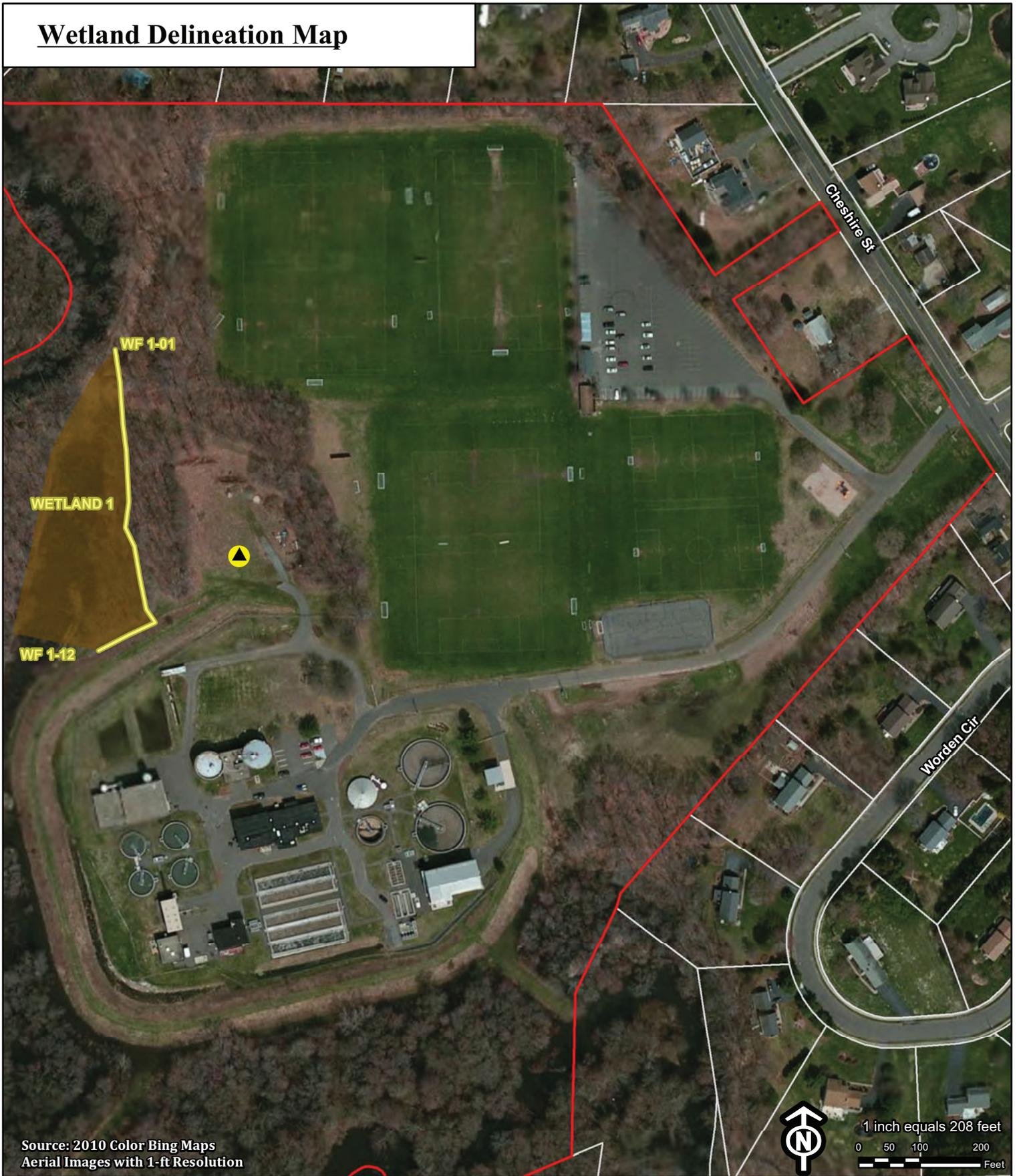
A handwritten signature in blue ink that reads "Dean Gustafson". The signature is written in a cursive style with a horizontal line extending from the end of the name.

Dean Gustafson
Professional Soil Scientist

Enclosure

Wetland Delineation Map

Wetland Delineation Map



Source: 2010 Color Bing Maps
Aerial Images with 1-ft Resolution

Legend

-  Proposed Tower Location
-  APT Delineated Wetland Boundary
-  Approximate Wetland Area
-  Subject Parcel
-  CTDEEP Parcel (updated 8/10)

Proposed Homeland Towers Facility 1325 Cheshire St. Cheshire, Connecticut

Wednesday, November 13, 2013



ATTACHMENT 8

Daniel L. Goulet
 C Squared Systems, LLC
 65 Dartmouth Drive
 Auburn, NH 03032
 603-644-2800
 Dan.Goulet@csquaredsystems.com



June 16, 2014

Connecticut Siting Council

Subject: New Cingular Wireless PCS, LLC (“AT&T”) – S3459A - 1325 Cheshire Street, Cheshire, CT

Dear Connecticut Siting Council:

C Squared Systems has been retained by New Cingular Wireless PCS, LLC (“AT&T”) to investigate RF Power Density levels for the AT&T antenna arrays, to be installed on the proposed monopole tower, to be located at 1325 Cheshire Street in Cheshire, CT.

Calculations were done in accordance with FCC OET Bulletin 65. These worst-case calculations assume that all transmitters are simultaneously operating at full power and that there is 0 dB of cable loss. The calculation point is 6 feet above ground level to model the RF power density at the head of a person standing at the base of the tower.

Due to the directional nature of the proposed AT&T antennas, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to the Attachment for the vertical patterns of the proposed AT&T antennas. The calculated results below include a nominal 10 dB off-beam pattern loss to account for the lower relative gain directly below the antennas.

Location	Carrier	Vertical Distance to Antenna (Ft.)	Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Power Density (mw/cm ²)	Limit	%MPE
Ground Level	AT&T UMTS	155	880	1	1028	0.0017	0.5867	0.28%
	AT&T UMTS	155	1900	1	1265	0.0020	1.0000	0.20%
	AT&T LTE	155	710	2	1254	0.0041	0.4733	0.86%
	AT&T LTE	155	880	1	1543	0.0025	0.5867	0.43%
	AT&T LTE	155	1900	2	1897	0.0061	1.0000	0.61%
	AT&T LTE	155	2300	1	2179	0.0035	1.0000	0.35%
Total								2.74%

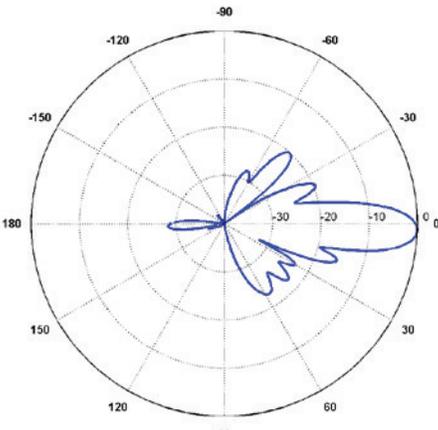
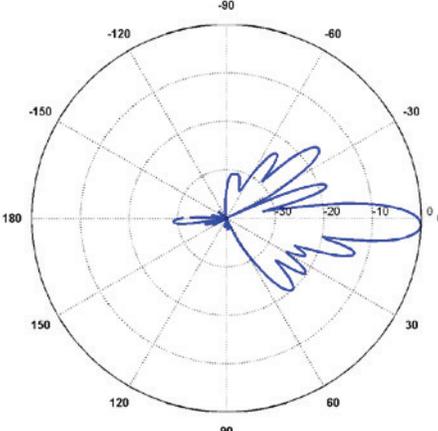
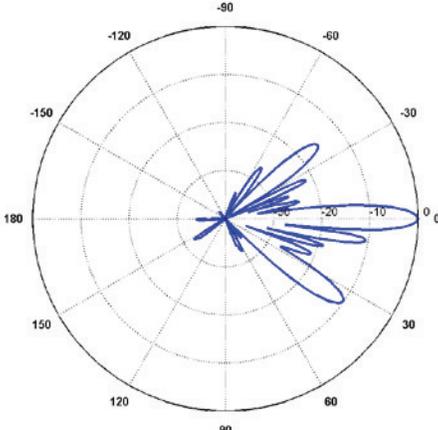
Summary: Under worst-case assumptions, RF Power Density levels for the proposed AT&T antenna arrays will not exceed 2.74%¹ of the FCC MPE limit for General Public/Uncontrolled Environments.

Sincerely,

Daniel L. Goulet
 C Squared Systems, LLC

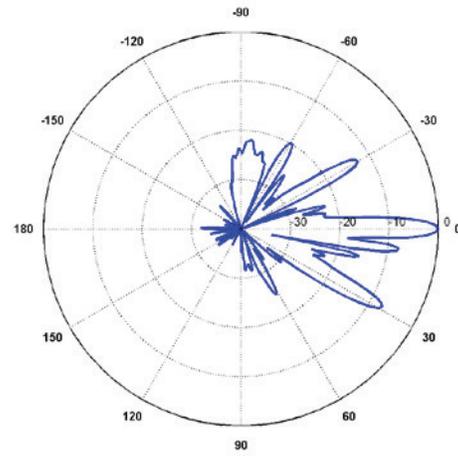
¹ The total %MPE is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

Attachment: AT&T's Antenna Data Sheets and Electrical Patterns

<p>750 MHz</p> <p>Manufacturer: CCI Products Model #: HPA-65R-BUU-H8 Frequency Band: 698-806 MHz Gain: 13.2 dBd Vertical Beamwidth: 10.1° Horizontal Beamwidth: 65° Polarization: Dual Pol ± 45° Size L x W x D: 92.4" x 14.8" x 7.4"</p>	
<p>850 MHz</p> <p>Manufacturer: CCI Products Model #: HPA-65R-BUU-H8 Frequency Band: 824-894 MHz Gain: 14.1 dBd Vertical Beamwidth: 8.4° Horizontal Beamwidth: 61° Polarization: Dual Pol ± 45° Size L x W x D: 92.4" x 14.8" x 7.4"</p>	
<p>1900 MHz</p> <p>Manufacturer: CCI Products Model #: HPA-65R-BUU-H8 Frequency Band: 1850-1990 MHz Gain: 15.0 dBd Vertical Beamwidth: 5.6° Horizontal Beamwidth: 62° Polarization: Dual Pol ± 45° Size L x W x D: 92.4" x 14.8" x 7.4"</p>	

2300 MHz

Manufacturer: CCI Products
Model #: HPA-65R-BUU-H8
Frequency Band: 2305-2360 MHz
Gain: 15.6 dBd
Vertical Beamwidth: 4.5°
Horizontal Beamwidth: 60°
Polarization: Dual Pol ± 45°
Size L x W x D: 92.4" x 14.8" x 7.4"



ATTACHMENT 9

Visibility Analysis

1325 Cheshire Street
Cheshire, Connecticut

Prepared For:

**Homeland Towers LLC
22 Shelter Rock Lane
Building C
Danbury, CT 06810**

Prepared By:

**All-Points TECHNOLOGY Corporation, P.C.
3 Saddlebrook Drive
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June 2014

Project Introduction

Homeland Towers is pursuing a Certificate of Environmental Compatibility and Public Need from the Connecticut Siting Council (“Council”) for the construction, maintenance and operation of a wireless communications facility (“Facility”) on property located at 1325 Cheshire Street in Cheshire, Connecticut (“Host Property”). At the request of Homeland Towers, All-Points Technology Corporation, P.C. (“APT”) prepared this Visibility Analysis to evaluate the potential visual impacts associated with the proposed Facility from within a two-mile radius (“Study Area”). In addition to the Town of Cheshire, small portions of the neighboring Towns of Southington (to the north), Meriden (east) and Wallingford (southeast) are also included within the Study Area.

Site Description and Setting

The 59-acre Host Property is located at 1325 Cheshire Street in Cheshire, New Haven County, Connecticut. The Cheshire Assessor’s Office identifies the Host Property as Parcel ID 38-180. The Host Property is developed with various municipal buildings and infrastructure supporting the Town of Cheshire wastewater treatment plant and the Town of Cheshire Quinnipiac Recreation Area that includes soccer and lacrosse fields, pavilion, picnic area, and in-line skating rink.

Homeland Towers proposes to install a 170-foot tall steel monopole designed to accommodate up to six commercial service providers and municipal/regional emergency services equipment. The Facility would be enclosed within a 62-foot by 75-foot fenced, gravel-base compound. The proposed Facility would be located in the west central portion of the Host Property (“Site”) at an approximate ground elevation of 116 feet Above Mean Sea Level (“AMSL”). The Facility has been designed to accommodate antenna platforms for multiple commercial service providers as well as the Town’s equipment.

The Host Property is surrounded on three sides by woods; the Quinnipiac River runs along the western property boundary. Land use within the general vicinity is primarily residential. The two-mile Study Area includes a total of approximately 8,042 acres. The tree canopy within the Study Area consists mainly of mixed deciduous hardwood species interspersed with scattered stands of conifers, and occupies approximately 5,841 acres (representing about 73% of the Study Area). Topography within the Study Area ranges in ground elevations from approximately 110 feet AMSL to 480 feet AMSL.

Methodology

APT used the combination of a predictive computer model and in-field analysis to evaluate the visibility associated with the proposed Facility on both a quantitative and qualitative basis. The predictive model provides a measurable assessment of potential visibility throughout the entire Study Area including private properties and other areas inaccessible for direct observations. The in-field analyses included a reconnaissance of the Study Area to record existing conditions, verify results of the model, inventory visible and nonvisible locations, and provide photographic documentation from publicly accessible areas. A description of the procedures used in the analysis is provided below.

Preliminary Computer Modeling

Two computer modeling tools are used to calculate those areas from which at least the top of the proposed Facility is estimated to be visible: IDRISI image analysis program (developed by Clark Labs, Clark University) and ArcGIS[®], developed by Environmental Systems Research Institute, Inc. Project- and Study Area-specific data were incorporated into the computer model, including the Facility's location, height, and ground elevation, as well as the surrounding topography and existing vegetation which are two primary features that can block direct lines of sight. Information used in the model included LiDAR¹-based digital elevation data and customized land use data layers developed specifically for this analysis. The LiDAR-based Digital Elevation Model ("DEM") represents topographic information for the state of Connecticut that was derived through the spatial interpolation of airborne LiDAR-based data collected in the year 2000 and has a horizontal resolution of ten (10) feet. In addition, multiple land use data layers were created from National Agricultural Imagery Program (USDA) aerial photography (1-foot resolution, flown in 2011) using IDRISI image processing tools. The IDRISI tools develop light reflective classes defined by statistical analysis of individual pixels, which are then grouped based on common reflective values such that distinctions can be made automatically between deciduous and coniferous tree species, as well as grassland, impervious surface areas, water and other distinct land use features. This information is manually cross-checked with the recent USGS topographic land characteristics to quality assure the imaging analysis.

Once the data layers were entered, image processing tools were applied and overlaid onto USGS topographic base maps and aerial photographs to achieve an estimate of locations where the Facility might be visible. First, only the topography data layer (DEM) was incorporated to evaluate potential visibility with no intervening vegetative screening. The model is queried to determine where the top of the Facility can be seen from any point(s) within the Study Area, given the intervening existing topography. The initial omission of the forest cover data layer results in an excessive over-prediction, but provides an opportunity to identify and evaluate those areas with potentially direct sight lines toward the Facility.

¹ LiDAR is an acronym for Light Detection and Ranging. It is a technology that utilized lasers to determine the distance to an object or surface. LiDAR is similar to radar, but incorporates laser pulses rather than sound waves. It measures the time delay between transmission and reflection of the laser pulse.

Eliminating the tree canopy altogether, as performed in the preliminary analysis exaggerates areas of visibility because it assumes unobstructed sight lines everywhere but in those locations where intervening topography rises above the height of the proposed Facility. However, using this technique not only allows for an initial identification of direct sight lines, but also to gain some insight regarding seasonal views when the leaves are not on the trees. This preliminary mapping is especially useful during the in-field activities (described below) to further evaluate “leaf-off” scenarios.

Visibility varies through the year as the leaves drop from deciduous trees. During “leaf on” conditions, individual trees that are grouped proximate to one another form a near opaque wall of vegetation that, once beyond a certain distance, cannot be seen through. Conversely, visibility increases seasonally with obstructed, views occurring during “leaf-off” conditions. Thus two forest data layers are created to represent both year-round (“leaf-on”) and seasonal (leafless or “leaf-off”) conditions. These data layers are incorporated into the model, analyzed separately and then merged to produce the visibility maps. Calculations resulting from the leaf-on forest data layer depict areas where at least the top of the Facility may be present above the intervening tree canopy. Similarly, computations from the “leaf-off” data layer also depict areas where the top of the Facility is predicted to be visible but it accounts for the increased transparency due to lack of vegetative screening. The Study Area includes mature vegetation with a unique composition and density of woodlands, with mast or pole timber and branching providing the majority of screening in leafless conditions. Beyond the density of woodlands found within the Study Area, each individual tree has its own unique trunk, pole timber and branching pattern characteristics that provide varying degrees of screening in leafless conditions which cannot be precisely modeled. Because tree spacing, dimensions and branching patterns as well as the understory differ greatly over even small areas, the Study Area has its own discrete forest characteristics. To approximate seasonal visibility, a conservative set of values was incorporated into the model, including the assumptions that each deciduous tree is simply a vertical pole with no distinct branching pattern. Given these conservative assumptions, the resultant modeling still over-predicts visibility in “leaf-off” conditions but does provide a better representation than the initial map using topography only.

A purposely low average tree canopy height of 50 feet was then incorporated into the forest data layers and added to the DEM for a second iteration of the visibility map. The model was queried again to determine where the top of the Facility may be seen from any point(s) within the Study Area, given both the intervening existing topography and forest data layers. The results of the preliminary analysis provide a representation of those areas where portions of the Facility could potentially be visible to the human eye without the aid of magnification, based on a viewer eye-height of 5 feet above the ground and the combination of intervening topography and tree canopy (year-round) and tree trunks (seasonally, when the leaves are off the deciduous trees) using an average tree height of 50 feet. This iteration provides a conservative assessment of intervening vegetation for use during the in-field activities to compare the outcomes of the initial computer modeling with direct observations of the balloon float.

As a final step, the forested areas were extracted from the areas of visibility, using a conservative assumption that a person standing within the forest will not be able to view the proposed Facility beyond a distance of approximately 500 feet. Depending on the density of the intervening tree canopy and understory of the surrounding woodlands, it is assumed that some locations within this distance could provide visibility of at least portions of the proposed Facility at any time of the year. In “leaf-on” conditions, this distance may be overly conservative for most locations. However, for purposes of this analysis, it was reasoned that forested land beyond 500 feet of the proposed Facility would consist of light-impenetrable trees of a uniform height.

Additional data was reviewed and incorporated into the visibility analysis, including protected private and public open space, parks, recreational facilities, hiking trails, schools, and historic districts. The Town of Cheshire maintains open space made available to the public which have walking trails. The nearest of these trails, the Quinnipiac Park Trail, wraps around three sides of the Host Property. Additional trails within the Study Area include those at Ives Farm (0.70± mile to the northeast) and Cheshire Park (1.27± miles southwest), as well as the Hanover Pond Trails which extend within 0.80± mile of the Site. Based on a review of publicly-available information, no State or locally designated scenic roadways are present within the Study Area.

In-Field Activities

To supplement and fine tune the results of the computer modeling efforts, APT completed in-field verification activities consisting of a balloon float, vehicular and pedestrian reconnaissance, and photo-documentation.

Balloon Float and Field Reconnaissance

A balloon float and field reconnaissance were conducted on April 2, 2014 to obtain photographs for use in this report. The balloon float consisted of raising an approximately four-foot diameter, red helium-filled balloon tethered to a string height of 170 feet above ground level (“AGL”) at the proposed Facility location. Weather conditions were favorable for the in-field activities, with calm winds (less than 4 miles per hour) and partly cloudy skies. Once the balloon was secured, APT conducted a Study Area reconnaissance by driving along the local and State roads and other publicly accessible locations to document and inventory where the balloon could be seen above/through the tree canopy. Visual observations from the reconnaissance were also used to evaluate the results of the preliminary visibility mapping and identify any discrepancies in the initial modeling.

During the balloon float and in-field activities, several trees were randomly surveyed using a hand-held infrared laser range finder and a Suunto Tandem clinometer to ascertain their heights. The heights of trees adjacent to the site were field measured to document the surrounding canopy elevation. Numerous off-site locations were also selected to obtain tree canopy heights, including along roadways, wooded lots, and high- and low-lying areas to provide for the irregularities associated with different land characteristics and uses found within the Study Area. The average canopy height was developed based on measurements and comparative observations, in this case approximately 65 feet AGL. Throughout Connecticut, the tree canopy height varies from about 55 feet to in excess of 80 feet (where eastern white pine becomes a dominant component of the forest type, average tree heights may be even slightly higher). This general uniformity is most likely the result of historic state-wide clear cutting of forests for charcoal production in the late 1800s and early 1900s. Approximately 69% of Connecticut's forests are characterized as mature².

² USDA Resource Bulletin NE-160, 2004.

Photographic Documentation

During the balloon float and field reconnaissance, APT drove the public roads within the Study Area and recorded observations, including photo-documentation, of those areas where the balloon was and was not visible. Photographs were obtained from several vantage points to document the views of a proposed Facility. The geographic coordinates of the camera's position at each photo location were logged using global positioning system ("GPS") technology. Photographs were taken with a Canon EOS 6D digital camera body and Canon EF 24 to 105 millimeter ("mm") zoom lens, with lens set to 50 mm.

"The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."³

Final Visibility Mapping

Information obtained during the field reconnaissance was incorporated into the mapping data layers, including observations of the balloon float, the photo locations, areas that experienced recent land use changes and those places where the initial model was found to over-predict visibility. The revised average tree canopy height data (65 feet AGL) was merged with the DEM and added to the base ground elevations of the forested areas data layer. Once the additional data was integrated into the model, APT re-calculated the visibility of the proposed Facility from within the Study Area to assist in producing the final viewshed map.

³ Warren, Bruce. Photography, West Publishing Company, Eagan, MN, c. 1993, (page 70).

Photographic Simulations

Photographic simulations were generated to portray scaled renderings of the proposed Facility from 20 representative locations where the proposed Facility would be visible either on a year-round or seasonal basis. Using field data, site plan information and 3-dimension (3D) modeling software, spatially referenced models of the site area and Facility were generated and merged. The geographic coordinates obtained in the field for the photograph locations were incorporated into the model to produce virtual camera positions within the spatial 3D model. Photo simulations were then created using a combination of renderings generated in the 3D model and photo-rendering software programs⁴.

As stated earlier, APT has elected to use a 50 mm focal length whenever possible; however, there are occasions when the use of a wider-angle lens setting is preferred. For presentation purposes in this report, all but one of the photographs were taken with a 50 mm focal length and produced in an approximate 7-inch by 10.5-inch format. When viewing in this format size, we believe it is important to provide the largest representational image while maintaining an accurate relation of sizes between objects within the frame of the photograph.

Photo-documentation of the balloon float and photo-simulations of the proposed Facility are presented in the attachment at the end of this report. The balloon float photos provide visual reference points for the approximate height and location of the proposed Facility relative to the scene. The photo-simulations are intended to provide the reader with a general understanding of the different views that might be achieved of the Facility. For illustrative purposes, the Facility is depicted with four antenna platforms and the Town's emergency services whip antennas. It is important to consider that the publicly-accessible locations selected are typically representative of a "worst case" scenario. They were chosen to present unobstructed view lines (wherever possible), are static in nature and do not necessarily fairly characterize the prevailing views from all locations within a given area. From several locations, moving a few feet in any direction will result in a far different perspective of the Facility than what is presented in the photographs. In several cases, a view of the Facility may be limited to the immediate area of the specific photo location.

⁴ As a final step, the accuracy and scale of select simulations are tested against photographs of similar existing facilities with recorded camera position, focal length, photo location, and tower location.

Photograph Locations

The table below summarizes characteristics of the photographs and simulations presented in the attachment to this report including a description of each location, view orientation, the distance from where the photo was taken relative to the proposed Facility and the general characteristics of that view. The photo locations are depicted on the visibility analysis maps provided as attachments to this report.

View	Location	Orientation	Distance to Site	View Characteristics
1	East Ridge Court	Southwest	±0.84 Mile	Seasonal
2	Cheshire Street Cemetery	Southwest	±0.49 Mile	Year-round
3	River View Court	South	±0.39 Mile	Seasonal
4	North Pond Road	Southwest	±0.70 Mile	Seasonal
5	Trout Brook Road	Southwest	±0.59 Mile	Seasonal
6	Cheshire Street	Southwest	±0.30 Mile	Year-round
7	Sandstone Circle	Southeast	±0.34 Mile	Year-round
8	Adjacent to #9 Marks Place	South	±0.20 Mile	Year-round
9	Oak Ridge Drive at Cul-de-Sac	East	±0.17 Mile	Seasonal
10	Vista Terrace	East	±0.20 Mile	Seasonal
11	Smith Place	West	±0.26 Mile	Seasonal
12	Host Property	West	±0.21 Mile	Year-round
13	Allen Avenue	West	±0.29 Mile	Seasonal
14	Allen Avenue	West	±0.28 Mile	Year-round
15	Allen Avenue	West	±0.51 Mile	Seasonal
16	Wooden Circle	Northwest	±0.22 Mile	Seasonal
17	Riverside Drive	Northeast	±0.33 Mile	Seasonal
18	Riverside Drive	North	±0.25 Mile	Seasonal
19	Cheshire Street	Northwest	±0.41 Mile	Year-round
20	Sindall Road	Northwest	±0.51 Mile	Seasonal

Visibility Analysis Results

Results of this analysis are graphically displayed on the viewshed maps provided in the attachment at the end of this report. Areas from where the proposed Facility would be visible above the tree canopy year-round comprise a total of approximately 53 acres. When the leaves are off the trees, seasonal views through intervening tree trunks and branches are anticipated to occur over some locations within an area of 735± acres.

In general, year-round views of large portions of the Facility appear limited to the Host Property and its immediate vicinity (0.25 mile or less) as can be seen in photos 12, 8 and 14, for example. Beyond this distance, year-round views become very sporadic and would offer less of a profile of the Facility (see photos 2, 7 and 19). The relatively restricted areas of year-round visibility are a result of the Host Property's setting within an area characterized by large stands of trees, including within and around residential neighborhoods.

Seasonal views, when the leaves are off the deciduous trees, could extend out to distances of approximately one mile northward and perhaps a bit more to the south. Approaching these distances, most views would be intermittent and substantially obscured by intervening trees and structures. Although photos 4, 5, 17 and 20 are all from locations less than one mile away, they provide representative examples of potential seasonal views from within the outer areas of seasonal visibility depicted on the viewshed maps. Please note that seasonal visibility over all non-accessible areas for field confirmation (i.e., private properties) is reliant on computer modeling and, as introduced above results in an over-prediction of the seasonal viewshed. The Facility would not be visible from all locations within the shaded areas depicted on the maps. Beyond the limitations previously discussed, the computer model cannot account for mass density, the height, diameter and branching variability of the trees, or the degradation of views that occur with distance. In addition, each point – or pixel - represents about one meter (3.28 feet) in area, and thus is not predicting visibility from all viewpoints through all possible obstacles. Although large portions of the predicted viewshed may theoretically offer visibility of the Facility, because of these unavoidable limitations the quality of those views may not be sufficient for the human eye to recognize the tower or discriminate it from other surrounding objects.

Year-round views of the Facility would be achieved from the northern portion of the Quinnipiac River Trail. Seasonal views are anticipated from the southern portion of this trail, as well as some locations within the Ives Farm trails system. No views are predicted to extend to the Hanover Pond Trails or Cheshire Park.

Proximity to Schools And Commercial Child Day Care Centers

No schools or commercial child day care centers are located within 250 feet of the Host Property. The nearest school is the Chapman School, located approximately 1.5 miles to the southwest of the Host Property at 38 Country Club Road. The nearest commercial child day care center is the Stork Club of Cheshire, located at 1311 Highland Avenue approximately 1.25 miles to the west. Note that the Chapman School also operates a day care (Chapman Y – Latch Key Center). No views of the Facility are anticipated from either of these locations.

LIMITATIONS

The viewshed maps presented in the attachment to this report depict areas where the proposed Facility may potentially be visible to the human eye without the aid of magnification based on a viewer eye-height of 5 feet above the ground and intervening topography and an assumed tree canopy height of 65 feet. This analysis may not necessarily account for all visible locations, as it is based on the combination of computer modeling, incorporating 2012 aerial photographs, and in-field observations from publicly-accessible locations. No access to private properties was provided to APT personnel. This analysis does not claim to depict the only areas, or all locations, where visibility may occur; it is intended to provide a representation of those areas where the Facility is likely to be seen.

The simulations provide a representation of the Facility under similar settings as those encountered during the balloon floats and reconnaissance. Views of the Facility can change throughout the seasons and the time of day, and are dependent on weather and other atmospheric conditions (e.g., haze, fog, clouds); the location, angle and intensity of the sun; and the specific viewer location. Weather conditions on the day of the balloon floats included partly cloudy skies and, combined with the leaf-off conditions, the photo-simulations presented in this report provide an accurate portrayal of the Facility during comparable conditions.

ATTACHMENTS

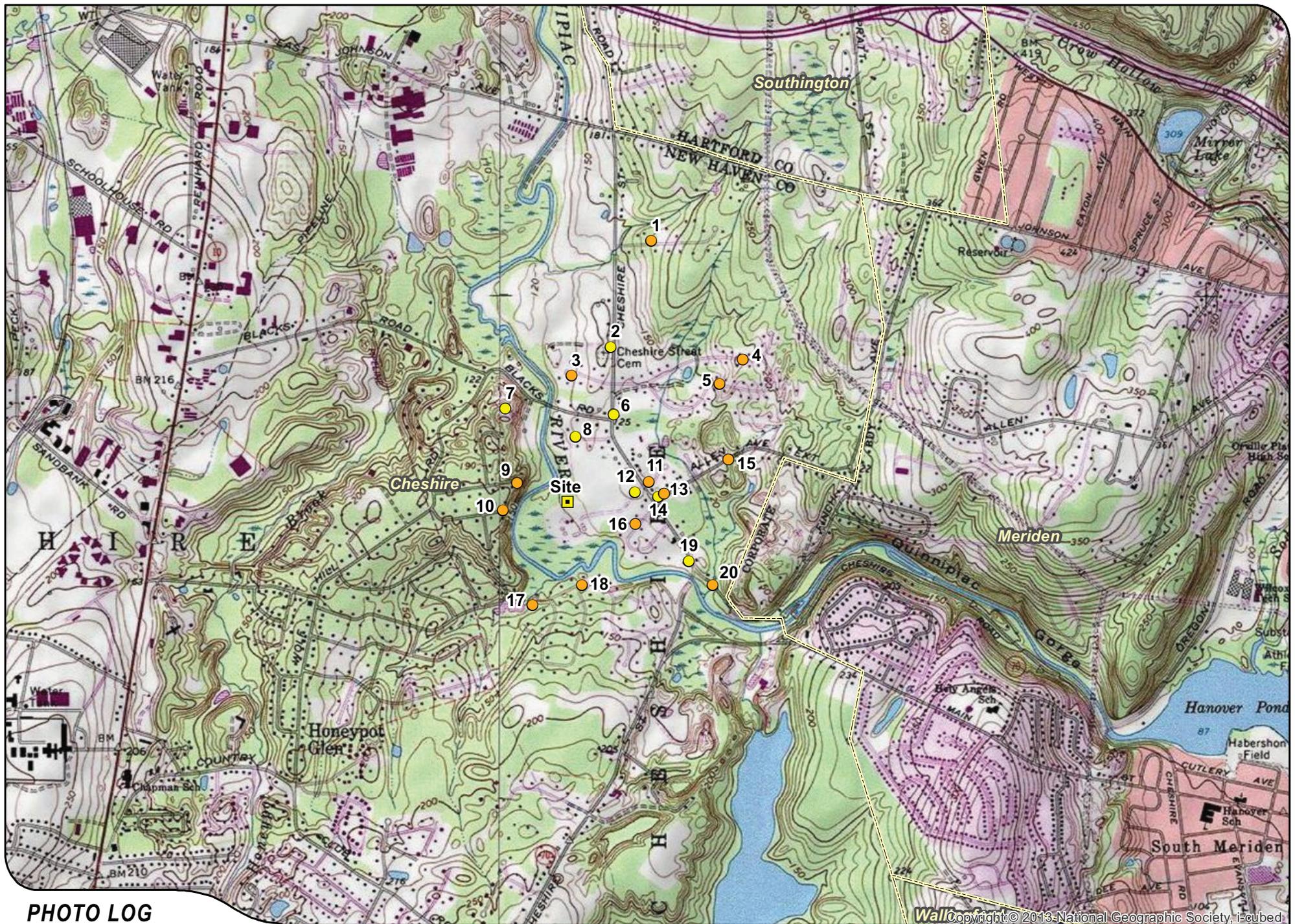
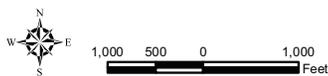


PHOTO LOG

- Legend
- Site
 - Seasonal Visibility
 - Year-Round Visibility
 - Municipal Boundary





DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	EAST RIDGE COURT	SOUTHWEST	+/- 0.84 MILE	SEASONAL



SIMULATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
1	EAST RIDGE COURT	SOUTHWEST	+/- 0.84 MILE	SEASONAL



DOCUMENTATION

PHOTO	LOCATION	ORIENTATION	DISTANCE TO SITE	VISIBILITY
2	CHESHIRE STREET CEMETERY	SOUTHWEST	+/- 0.49 MILE	YEAR ROUND